The Mongols in Iran

Chingiz Khan to Uljaytu 1220–1309

Judith Kolbas

THE MONGOLS IN IRAN

The administration of Iran under Mongol rule was often complex. Nevertheless, the book is able to explore it by means of taxation and monetary policy. A consistent development emerges through the abundant numismatic material available from the conquest of Samarqand by Chingiz Khan to the reign of the penultimate ruler, Uljaytu. In many cases, the individuals responsible for initiating and conducting policies can be identified from the special marks of mint masters. Moreover, the structure of the empire was clearly demarcated by mint production, coin styles and type of metal. The analysis illuminates many controversial historical points such as the meaning and function of an il-khan and the process and date of the establishment of the Toluid Dynasty after Hulagu. In Iran, the Mongols broke the crust of an inflexible and archaic Islamic monetary tradition that had been hampering economic growth. They did so by encouraging extensive trade and the advancement of sciences, especially astronomy and higher mathematics, with determined and always pragmatic programmes.

Judith Kolbas studied in the US and Lebanon, conducted research around the world and then lived in Mongolia and the UK. She is currently vice president of the Royal Asiatic Society, and explores trade routes, often by camel, in Chinese Turkestan and Inner Mongolia.

THE MONGOLS IN IRAN

Chingiz Khan to Uljaytu 1220–1309

Judith Kolbas

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2006
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Simultaneously published in the USA and Canada
by Routledge
270 Madison Ave, New York, NY10016

Routledge is an imprint of the Taylor & Francis Group

© 2006 Judith Kolbas

Typeset in Times New Roman by
HWA Text and Data Management, Tunbridge Wells
Printed and bound in Great Britain by
MPG Books Ltd, Bodmin

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

The publisher makes no representation, express or implied, with regard to the accuracy of the information contained in this book and cannot accept any legal responsibility or liability for any errors or omissions that may be made.

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data
Kolbas, Judith G.
The Mongols in Iran : Chingiz Khan to Uljaytu, 1220–1309 / Judith G. Kolbas.– 1st ed.
p. cm.
Includes bibliographical references and index.
1. Iran–History–640–1500. 2. Mongols–Iran–History. I. Title.
DS288.K647 2005
955′.26–dc22
2004030618

ISBN 0–7007–0667–4

CONTENTS

List of illustrations vii
Preface ix
Acknowledgments xiii

PART I
The Governors 1

1 Aristotle to Nasir al-Din Tusi: traditions ready for development 3

2 Yalavach: entering the land of gold and silver; establishing foundations 31

3 Jalal al-Din: collapse of the old order 76

4 Kirgiz: stabilizing the empire in the west 87

5 Arghun Aqa: fundamental shifts in imperial power 121

PART II
The Khans 191

6 Abaqa: Toluid claims and regional reforms: 667–80 H 193

7 Tegudar and Arghun: the first Toluid civil war 235

8 Arghun: inspired vision and rapid innovations 245

9 Gaykhatu, Baydu and Ghazan: imbalance and identity crisis 278

10 Ghazan and Uljaytu: a secure but decentralized realm 310

11 Overview: Mongol caravans, markets and taxation in Iran 375

Appendix: *people and positions* 381
Bibliography 390
Index 403

ILLUSTRATIONS

Maps

1	Central Asia	xiv
2	Transoxiana	xiv
3	ʿIraq-i ʿAjam, Khurasan, Shahristana, Zabulistan	xv
4	Adharbayjan, Anatolia, Georgia, ʿIraq-i ʿArab, Syria	xv

Plates

2.1	*Khānī* Dirham type (Samarqand)	35
2.2	*Khānī* Dirham type (Balkh)	37
2.3	Chingiz Khān type (Ghazna)	47
2.4	*ʿAdl* type (Kurram)	50
2.5	*Urdū* type	61
4.1	Prospertity coinage (Bayaqan)	109
5.1	Horseman type (Nakhchavan)	125
5.2	Hexagon type (Tabriz)	129
5.3	Imperial *Tamgha* type (Bulghar)	143
5.4	Georgian *Tamgha* type (Tiflis)	145
5.5	Mongka – Hulagu type (Damascus)	157
5.6	Mongka – Hulagu type (Baghdad)	161
5.7	Hexagon combination type (Tiflis)	163
5.8	Hūlāgū Il-Khān type (al-Mawsil)	173
5.9	Abāqā Il-Khān type (Baghdad)	174
6.1	Curved hexagon type (Tabriz)	203
6.2	Mongolian type (Tabriz)	213
8.1	*Sikka-i Tabriz* type (Kashan)	255
8.2	*ʿĀdliya* type (Shiraz)	258
8.3	Falcon–Sun type (Tabriz)	262
9.1	Irinchin Turji type (Tabriz)	279
9.2	Sultan Qazān type (Tabriz)	300
10.1	Ghazan reform type (Baghdad)	324
10.2	Embellished reform type (Shiraz)	351
10.3	Uljaytu Arabic type (al-Basra)	357

Tables

1.1	Mithqal weights	21
1.2	Alloy analysis of sample silver coinage	22
1.3	Alloy analysis of sample gold coinage	24
1.4	Tabriz production schedule	25
1.5	Weight standards for silver coinages: chronological chart of main mints or types	27
2.1	*Khānī* Dirham, 617–19 H	39
2.2	*ʿAdl*, *Urdū* and *Āllāh* coinages, 618–24 H	67
5.1	Hulaguid territories, 658–68 H	176
6.1	Hulaguid territories, 668–79 H	209
8.1	Arghun coinages, 687–90 H	269
10.1	Royal mints, 696–703 H	332
10.2	Greater Arran (silver)	334
10.3	Anatolian region	338
10.4	Irminiya–Gurjistan	340
10.5	The Jazira	343
10.6	ʿIraqi-i ʿAjam	345
10.7	Dhihistan–Mazandaran	346
10.8	Shahristana	347
10.9	Central Khurasan	348
10.10	Traditional Mongol centres	349
10.11	ʿIraq-i ʿArab	350
10.12	Fars	352
10.13	Main administrative areas, 703–9 H	361
10.14	Northwestern areas, 704–9 H	363
10.15	Anatolia, 704–9 H	365

Figures

9.1	Tabriz silver distribution histogram: Arghun reform	287
9.2	Tabriz silver distribution histogram: Arghun falcon	288
9.3	Tabriz silver distribution histograms: Gaykhatu	288

PREFACE

In the thirteenth century, the Mongols believed that they had the mandate of heaven to rule the world. In fulfilling that responsibility, they succeeded in creating the largest land empire the world has known, extending it from the edge of Egypt to Japan and from the Polish plain to the China Sea. Of all these lands, their longest tenure with a flourishing economic and cultural life existed in the area south of the Black Sea and west of the Himalayan Mountains. However, the Mongols severely challenged the economic life of that area. The battles between the indigenous systems and Mongol aspirations were reflected by changes in money.

This book explores the theory, structure, and techniques of monetary policy in the southwestern portion of the Mongol Empire from its invasion by Chingiz Khan in 616 H/1220 AD to the mid-reign of Uljaytu in 709 H/1309 AD. It begins with events in Transoxiana and then tracks the influence of policy from there on territory to the south and west. This territory constitutes Greater Iran, present-day Iran itself, Afghanistan, part of Turkmenistan, Georgia, Armenia, Azerbayjan, part of Turkey and all of Iraq. Since the core area was Iran, these adjacent ones have been added to it in the term. Since economic activity is a social phenomenon, other aspects of Mongol life are also examined, including social and political activities, administrative languages and cultural symbols. The area, initially regulated by the immediate interests of roving bands, slowly gained a sophisticated structure. The development process is disclosed by the geographic and production relationships of mint sites as well as the political announcement on coin types.

Ultimately, these points pale in interest to the upheaval the Mongols gave to money itself. The Mongols shook to the roots indigenous practices but preserved the theoretical foundation. For several centuries before their arrival, the archaic monetary system had been unable to meet the demands of a radically different economic environment. The Mongols accepted the system's fundamental practices; but they manipulated the internal components, which included providing it with exchange flexibility, infusing it with massive quantity and practicing precise quality control. The accounting, administrative and technological innovations of the Mongols revolutionized monetary practice and propelled their society into the most advanced economic stage of the period.

Great wealth came from both a large cohesive internal market and the encouragement and control of foreign trade. Specific types of money were produced for each of these goals. However, the market was not the chief purpose of Mongol money. The government made and regulated coinage because it was the most effective means for taxation. New concepts advanced the theory of the basis of taxation from fixed resources to surplus value. Different monetary structures and the coin types reflected the progress. This study concludes in 1309 AD, twenty-seven years before the close of the dynasty's rule, when the system reached its fulfilment. For the last quarter of a century, the regime made adjustments to a mature economy that was monetised in almost all sectors. A massive amount of coinage was produced that over-shadowed all previous Mongol output and the subsequent dynasties. A study of the fine-tuning is a different project from this analysis of theory and development.

In spite of the fact that the Mongols were nomads, they established a stationary administrative centre in Tabriz. The city's rise and decline under them is the focus for this study. At the start, there is no indication that the Mongols had a desire to centralize the monetary system. At the end, when all aspects of coinage were uniform, Tabriz was simply one of nearly a hundred mints. Tabriz was the financial centre not the cultural or political capital. As a result, its coinage reflected society rather than imposed a model on it. In particular, Mongol money expressed many views on religion and political legitimacy and authority in various images, scripts and languages. From the coinage, there is no indication of a single dominant or court culture but a fluid one exposed to many influences.

Unfortunately, Mongol eclecticism can be confusing if applied to English transliteration. Since Arabic script was the predominant one on the coins, Arabic spelling is used to render most of the words directly incorporated into the following text. The exceptions are words or names that are particularly common and Mongolian words written in Uighur script.

The coins examined are from the public collections of the American Numismatic Society in New York, the Ashmolean Museum in Oxford, the Bibliothèque Nationale of Paris, the British Museum in London, the Dar al-Kutub or National Library in Cairo, the Fitzwilliam Museum in Cambridge, the Hermitage in St. Petersburg, the Islamic Art Museum in Cairo, the Kunsthistorische Museum of Vienna, the Münzsammlung of Munich, the Smithsonian Institution in Washington, DC, the Yapi ve Kredi Bankasi in Istanbul and the private holdings of Steve Album, most of which are now public at the University of Tübingen, Bora Etkar of Istanbul, Jan Christoph Hinrichs of the Netherlands, Muhammad Limbada of London, Çunayt Ölcer of Istanbul, David Priestely of Hove, Robert Tye of York, and the sale items of the London offices of Spink and Sons, and Sotheby's.

With respect to additional information, John Mason Smith kindly provided his unpublished notes. He visited coin cabinets in the late seventies, which were impossible or difficult to enter after the late eighties. These were the Bank Sepah of Teheran, the Iran Bastan Museum in Teheran, the Iraqi National Museum in Baghdad, the Istanbul Archaeology Museum, the private collection of Alexander

Morton in Teheran and portions of the Bibliothèque Nationale of Paris. Although Smith's notes are sometimes sketchy, his work is reliable; and if a particular point in this study ever became crucial, his photographs would be available. His notes have been incorporated into the research catalogue and have added significantly to the volume of specimens needed to provide reasonably reliable statistics on weight standards. Moreover, his notes also added types unknown elsewhere. Therefore, the following comments on Mongol coins and their antecedents are based, when not otherwise indicated, on the working catalogue compiled from my photographs and his notes.

Although the corpus includes coins from twenty-six collections, many holdings remain inaccessible or unrecorded. New information is expected from these and from material that reaches the market in the future.

Those who say that history is written by the victor have not studied the Mongols. Their history was recorded by the people they conquered. Their own records have been lost except for *The Secret History*, an invaluable source for the earliest years. Otherwise, our knowledge comes from myriad languages and various types of reports. For Greater Iran, many have been translated into English or French. However, the different languages have provided various ways of spelling some standard Mongol words, which required a choice of just one form. In particular, the problem of rendering the name of the founder of the Mongol Empire is given as Chingiz Khan because that is the spelling on his coins from Ghazna.

The basic textual source for the major reform of Ghazan Mahmud is the unique report attributed to Ghazan's wazir, Rashid al-Din. He compiled a universal history, the *Jāmiʿ al-Tawarīkh*, at the end of which he discussed the changes in administration under Ghazan. It is the only extant monetary edict from the place and time and sheds light on contemporary economic views. It was consulted in manuscript at the Sulaymania Library in Istanbul, the University of Edinburgh Library, the National Library in Vienna, the Bodleian Library in Oxford, the archives of Aya Sofya in Istanbul, the Bibliothèque Nationale of Paris, the University Library in Munich and the Yeni Kutubhane at the Top Kapi Seray in Istanbul. There are no variations in the text or explanatory notes in the margins except, in some cases, for slight changes in titles and the addition of Lur to the list of regions. The text falls short of fulfilling its own requirements, which are announced in the heading of the chapters; yet the original was committed in this form. Thus, the printed editions provide exactly the same information as the manuscripts. Further, in these libraries as well as in the Chester Beatty Library in Dublin, the Pierpont Morgan Library in New York, the University Library in Cambridge, the British Library in London and the Dar al-Kutub of Cairo, any untitled or partially relevant epistles in Arabic or Persian were reviewed for any other light on economic matters of the time. Unfortunately, no new information emerged. However, much material from contemporary or near-contemporary witnesses has been published already and translated. The works are more than sufficient for understanding the general outline of activity. In fact, only some published reports are used here, but there are more.

In conclusion, the foundation of this analysis of Mongol economic life is money. It first had to be located, photographed and described before the first full catalogue could be constructed. From that corpus, types were identified and weight systems discovered. The methods for studying Islamic coinage had to be modified constantly as variable production patterns emerged. In fact, normal numismatic problems and the techniques to solve them proved inadequate. Since there was no appropriate model, basic questions had to be asked repeatedly and the answers tested continually. Finally, the development of the hard coinage was given a human context by many eye-witness accounts.

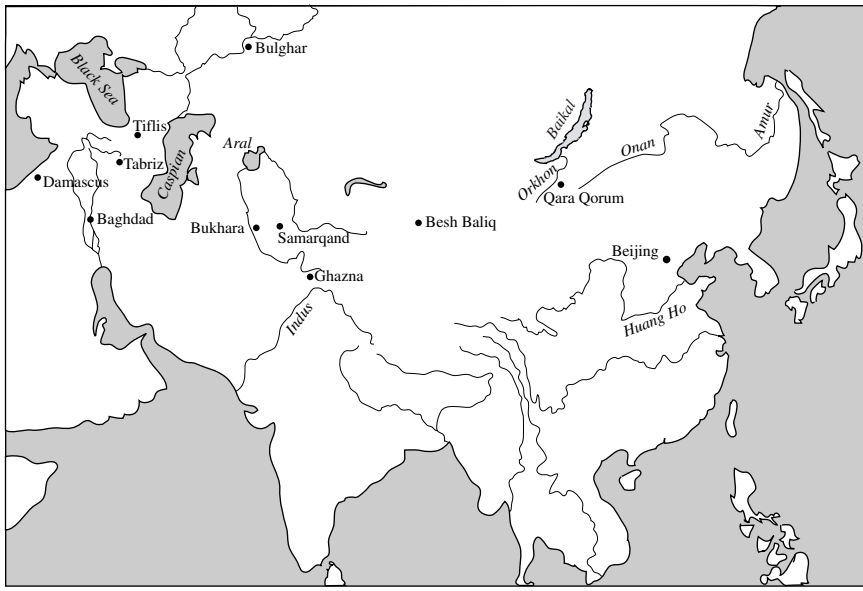
ACKNOWLEDGMENTS

This study of money received financial support from a Fulbright-Hays Dissertation Research Abroad Grant, a Dissertation Research Award from the American Association of Iranian Studies, a Dean's Dissertation Award from New York University and grants from the Henry and Lucy Moses Foundation. Since the study called for a great deal of expensive travel, photography and extended foreign residence, without the help of these organizations, the original dissertation could not have even begun.

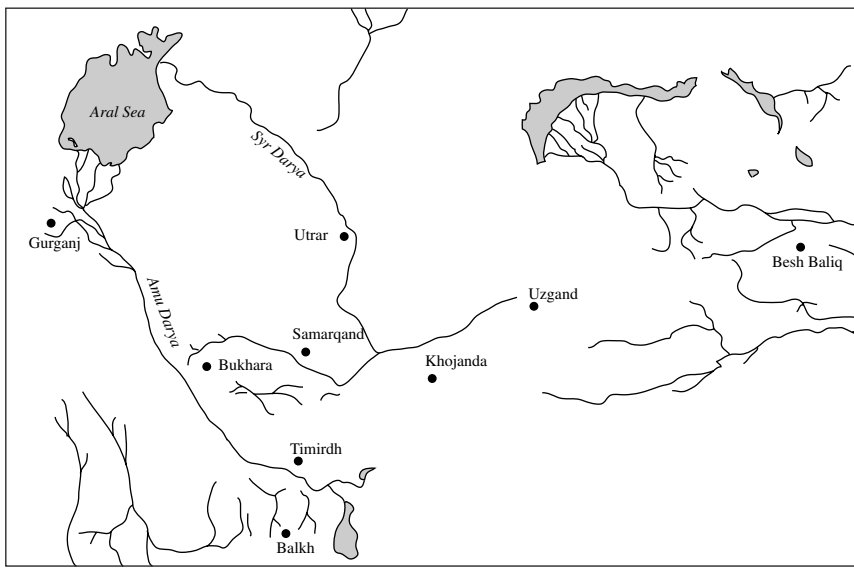
My grateful appreciation for sharing their depth of knowledge and/or for their necessary assistance is extended to Mahmud Ismail Abdullah, Steve Album, Muhammed Ibrahim Atfesh, the late Tuncay Aykut, Michael Bates, David Bivar, Barbara Brend, Helen Mitchell Brown, Paul Buell, Joe Cribb, Elizabeth Darley-Doran, Andre deClairemont, Carole Deeb, Bora Etkar, Tom Eden, Ryka Gyselen, the late Ray Hebert, Ludger Illisch, Edward Kennedy, Garo Kurkman, Rudi Lindner, the late Nicholas Lowick, Arlette Negre, the late Çunayt Ölcer, Venetia Porter, Larry Potter, Robert Tye, Terry Volk, the late Estelle Whelan and ᶜAbd al-Ra'uf ᶜAli Yusuf. Each has contributed to this work in a special way which will remain a cherished memory. The statistical graphs for the original study were most efficiently prepared by Richard Kolbas, who also provided technical knowledge about quality control in the field of manufacturing. Munkhjargal Purev provided substantial assistance in Mongolian and Russian titles and in the final editorial stages. David Bivar kindly printed the coins from S. Album's collection, a task that can be difficult without expert knowledge of both coins and dark room techniques. Finally, this study of money greatly benefited from my years abroad, which could not have occurred without the financial management of Richard Kitts.

There are no words adequate to express my gratitude for the support, encouragement, friendship and active assistance of John M. Smith, Robert Darley-Doran, Alexander Morton and the advisor for the dissertation on which this work was based, Robert McChesney. I can never repay their personal generosity and their long-term faith in me.

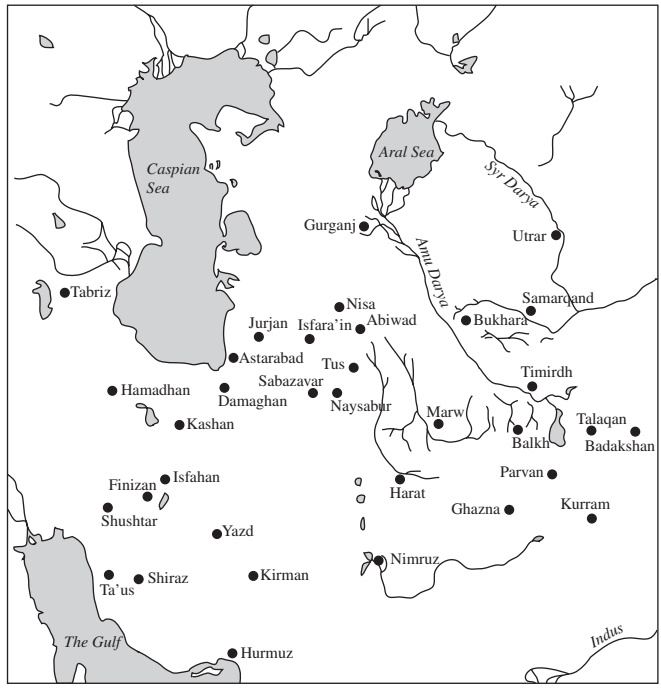
All of the kind support that has been provided obliges me to use the information and privileges with the greatest respect. I have endeavoured to do so within my meagre ability, yet the mistakes that unwittingly have been made and the interpretation of the material are solely my responsibility.



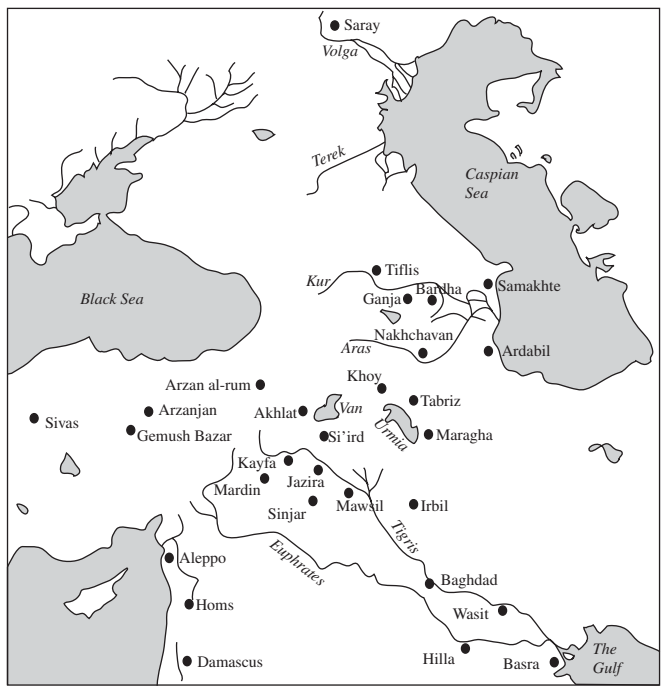
Map 1 Central Asia



Map 2 Transoxiana



Map 3 ʿIraq-i ʿAjam, Khurasan, Shahristana, Zabulistan



Map 4 Adharbayjan, Anatolia, Georgia, ʿIraq-i ʿArab, Syria

Part I

THE GOVERNORS

1

ARISTOTLE TO NASIR AL-DIN TUSI

Traditions ready for development

Economic theory and Islamic numismatic history

When the Mongols conquered the Rum Saljuqs in 641 H/1243 AD, they gained possession of the birthplace of coinage. Stamped pieces of precious metal were first made in the southwestern interior of Anatolia in approximately 700 BC. Their use expanded east to the Iranian plateau and south to the maritime city-states, such as the Rhodian League, from which coins became part of the commercial life of the Greek peninsula. About 300 BC, the Greek political situation changed: the empire of the Athenian League, based on strategic ports with the land behind remaining in the hands of local "barbarians", advanced to a new stage in Macedonia, the northern, almost land-locked area of the peninsula. Alexander claimed all the land but, like his southern Athenian predecessors, used cities as the controlling mechanism. As he marched east and south, he founded one city after another, leaving behind not only Greeks but also their customs. In this way, the habit of using money of hard metal dutifully followed the footsteps of Alexander: coinage entered Parthia, Bactria and India. The territorial limit of his armies was also the final point for the use of coins.

Economic theory

Although empires had changed, the retention of the system was due in part to the fact that the basic theories of a market economy, money and taxation had already been formed, most of them amalgamated into the works ascribed to Aristotle as head of the Peripatetic School. These theories were based on the premise that man is a social being, so the discourses considered the way a person functioned in society, clearly stating that an individual related to himself and others through immutable laws. This social theory was in conflict with that of the Pythagorean School, whose teachings stressed mathematical concepts. The Pythagorean beliefs have not been preserved in general, only portions remain in the writings of its opponents, chief of whom was Aristotle; yet, many Pythagorean tenets, often attributed to Aristotle by Islamic thinkers, were impossible to dismiss and were included in subsequent philosophic discussions.

Greek social theory quickly discovered three spheres for ordering life which today are labeled divine, positive and natural law. Aristotle, who did not have a Semitic religion, defined the highest plane as follows:

> Every art, and every science … and in like manner every action and moral choice, aims … at some good: for which reason a … description of the Chief Good is "that which all things aim at",[1] … the best thing of all.[2]

Although man strove for good, it was also given to him, economically, by "God", who provided for his creatures. Since He created life, what His creatures received was what they needed. According to Aristotle, existence:

> is chiefly nature's [responsibility], for it is her part to supply her offspring with food; for everything finds nourishment left for it in what produced it; for which reason the natural riches of all men arise from fruits and animals.[3]

After the Chief Good, the next sphere was positive law or the person and rules by which divine law was fulfilled:

> Ranging under this [are] the most highly esteemed faculties, such as the art military, and that of domestic management [economics] … Since this uses all the other practical sciences, and moreover lays down rules as to what men should do, and from what to abstain, the End of this must include … *The Good* of man. And grant that this is the same to the individual and to the community, yet surely that of the latter is plainly greater and more perfect to discover and preserve: for to do this even for a single individual were a matter for contentment; but to do it for a whole nation, and for communities generally, were more noble and godlike.[4]

Economically, this meant that:

> the art of getting money is the business [of the one] who is at the head of a family or a state, and though not strictly so, it is however very necessary; for as a politician does not make men, but receiving them from the hand of nature employs them to proper purposes; thus the earth, or the sea, or something else ought to supply them with provisions, and this it is the business of the master of the family to manage properly.[5]

Pursuant to the good and legislation, the third level was natural law, which consisted of two parts: "nobleness and justice … [which] are supposed by some to exist conventionally only, and not in the nature of things".[6]

Nobleness was the distribution through individual honour or status of both social position and wealth, accomplished in a manner resembling the functioning

of the human body. Aristotle did not discuss this analogy as fully as Plato did, whose ideas were later absorbed and remodeled by al-Farabi (*fl.* about 870–950 AD), considered the "second Aristotle" by Muslims. In the words of al-Farabi:

> The heart comes to be first and becomes the cause of the existence of the other organs and limbs of the body …[7] This applies to all existents.[8]
> …
> [In particular] the excellent city resembles the perfect and healthy body, all of whose limbs co-operate to make the life of the animal perfect and to preserve it in this state. Now the limbs and organs of the body are different and their natural endowments and faculties are unequal in excellence, there being among them one ruling organ, namely the heart, and organs which are close in rank to that ruling organ, each having been given by nature a faculty by which it performs its proper function in conformity with the natural aim of the ruling organ. Other organs have by nature faculties by which they perform their functions according to the aims of those organs which have no intermediary between themselves and the ruling organ; they are in a second rank.[9]

According to the body politic theory, in which the head or heart was the chief organ, the parts were rewarded by their rank; or, in other words, the distribution of social and natural wealth was analogous to the hierarchy of the human body.

The other term involved in Aristotle's "the nature of things" or natural law was justice. It was envisioned as a mid-point or balance that performed equality of measure. Therefore, it had to include the Pythagorean concept that the universe was organized by quantifiable relationships, the use of numbers being the simplest method of recognizing and ordering the function of its parts. Aristotle discussed the matter by identifying Particular Justice, which he defined as follows:

> One species is that which is concerned in the distributions of honour, or wealth, or such other things as are to be shared among the members of the social community … [equally so that] the Unjust is unequal [while] the Just is equal … and as the equal is a mean the Just must also be a mean: … it follows then that the Just is both a mean and equal. … The Just in distribution ought to be according to some rate … a certain proportionable thing. For proportion does not apply merely to number in the abstract, but to number generally, since it is equality of ratios. …[10]
>
> In dealings of exchange such a principle of justice as the Reciprocative forms the bond of union; but then it must be Reciprocation according to proportion and not exact exchange.[11] … It is therefore indisputable that all things which can be exchanged should be capable of comparison and for this purpose money has come in and comes to be a kind of medium, for it measures all things and so likewise the excess and the deficient. … It is what it is not naturally but by custom or law, and it rests with us to

> change its value, or make it wholly useless.[12] … And further, money is a kind of security to us in respect of exchange at some future times … ; the theory of money being that when one brings it one can receive commodities in exchange: it is of a more permanent nature than the commodities it represents. And this is the reason why all things should have a price set upon them. … So money, like a measure, making all things commensurable equalises them. … in fact, all things are measured by money.[13]

Therefore, natural justice was defined by the mathematical principle of proportion, particularly that of the mean. In order to make all things equal, there must be a single standard to which unlike things may be compared. In the realm of economics, this physical standard was money verified by the balance. Its active purpose as a medium of exchange was to allow the distribution of goods. Its passive function was to store value for future transactions. Its static purpose was to determine value by calculating numerical equivalence or price.[14] Goods, labour and honour were measured in money. If the man-made determinants of weight and substance instituted by positive law did not adhere to a standard, money became dysfunctional, causing the economy to collapse. Good money meant to the ancients a sound economy consisting of many items at fair prices, fast turnover and a plentiful money supply to facilitate such activity.

The standard measure of money had man-made characteristics established by practicality and consensus: a set weight, a certain substance and a stamp to assure the presence of the previous two:

> … for it is not everything which is naturally most useful that is easiest of carriage; for which reason they invented something to exchange with each other which they should mutually give and take that, being really valuable itself, should have the additional advantage of being of easy conveyance, for the purpose of life, as iron and silver, or anything else of the same nature: and this at first passed in value simply according to its weight or size; but in process of time it had a certain stamp, to save the trouble of weighing, which stamp expressed its value.[15]

Whoever controlled these components of the measure provided the correct functioning of the world order: "Good is produced in the categories of substance, quality, and relation".[16] Therefore, sound money emanated from a responsible ruler serving God's directive.

In conclusion, legal justice or positive law was the pivot between God and nature or was the act between potentiality and existence. Thus, the purpose of a ruling body, whether group or individual, was the establishment of merit and the production and verification of the standard of equality or the means of measuring. Natural justice was the self-evident manner to provide for man's needs through distributing goods directly on merit or indirectly through money. The two forms of natural law, nobleness and justice, were clearly discussed in terms of biological

or mechanical similes. In a less picturesque and accurate view, the process of justice moved vertically and horizontally.

After establishing the fundamental concepts, Greek economic theorists addressed the market. The theory of its function, like today's, rested on price to equalize the supply and demand of a product or service. On the demand side, value theory was based on utility and, on the supply side, on labour:

> [The] measure of all things … is really and truly the Demand for them, which is the common bond of all such dealing. For if the parties were not in want at all … there would … not be any exchanges. And money has come to be, by general agreement, a representation of Demand.[17]

The utility of an object or service consisted of three possibilities: (1) subsistence or the capacity to hold its value, which conserved surplus, (2) the ability to be consumed, destroyed or made unique, which reduced surplus, and (3) the ability to create further gain, which added to surplus. The first point, that of equilibrium, was rarely commented upon. The second was manifested mainly by the abhorrence of hoarding; it was morally a sin and legally prohibited. The third led to an active and growing market. As a result, it was this last factor of demand that chiefly concerned supply.

God's natural resources were a given, but labour was man's addition to them and enhanced supply. In fact, to be human meant to work. This led man to his two main goals, self-sufficiency and happiness. Labour was defined as:

> pleasure … derived from the actual working out of a present action, from the anticipation of a future one, and from the recollections of a past one: but the highest pleasure and special object of affection is that which attends on the actual working.[18]

Man's labour created or enhanced the natural product in three capacities, by (1) cultivating the soil, caring for and protecting animals, gathering wild things, extracting minerals, (2) refashioning these items and (3) transporting them for use. According to Aristotle, agriculture and herding were "the first and most proper parts of domestic management".[19] However, all three points were subject to the market since "money-making … may be applied to two purposes, the service of the house or retail trade".[20]

> With respect to gaining money by exchange, the principal method of doing this is by merchandise, which is carried on in three different ways, either by sending the commodity for sale by sea or by land, or else selling it on the place where it grows; and they differ from each other in this, that the one is more profitable, the other safer. The second method is by usury. The third by receiving wages for work done, and this either by being employed in some mean art, or else in mere bodily labour. There is

> also a third species of improving a fortune, that is something between this and the first; for it partly depends upon nature, partly upon exchange; the subject of which is, things that are immediately from the earth, or their produce, which though they bear no fruit, are yet useful, such as selling of timber and the whole art of metallurgy, which includes many different species, for there are various sorts of things dug out of the earth.[21]
>
> In general, many people endeavour to procure other riches and other property, and rightly, for there are other riches and property in nature; and these are the proper object of economy: while trade only procures money, not by all means, but by the exchange of it, and for that purpose it is this which it is chiefly employed about, for money is the first principle and the end of trade; nor are there any bounds to be set to what is thereby acquired.

However, Aristotle had a *caveat* that:

> economy requires the possession of wealth, but not on its own account but with another view, to purchase things necessary therewith; but the other procures it merely to increase it.[22]

Thus, the market system was based on the equivalence or the just price between the demand for utility and the supply of labour.

The labour theory of natural increase or simple accumulation also underlay the concept of legal taxation and interest. Taxation policy was not as clearly documented as commerce was; but practice, certainly in the post-Hellenistic world and in the Mongol period, showed that taxes should be taken only from the recent production of the land, i.e. crops and flocks, and human effort, i.e., manufacturing and trade. Taxes were to pay for the security required to produce things, that is military protection and the administration of justice. Therefore, legal taxes consisted of those on saleable labour in general, which was the poll or head tax, borne by adult working males, and specific portions on increases in agriculture, herds, extraction industries and trade.

However, if the value of an item was not determined by labour, it was illegitimate or unjust. Since money was not a living creature, it could work to neither improve itself nor reproduce. Therefore, increase on money was unnatural,

> for it has not its origin in nature, but by it men gain from each other; for usury is most reasonably detested, as it is increasing our fortune by money itself, and not employing it for the purpose it was originally intended, namely exchange.
>
> And this is the explanation of the name which means the breeding of money. For as offspring resemble their parents, so usury is money bred of money. Whence of all forms of money-making it is most against nature.[23]

Therefore, it was impossible to have interest and still be part of God's natural order. Moreover, the mathematical argument against interest stressed that money was a fulcrum in the exchange mechanism. If it were no longer a method but a product of exchange, money was not money since it could not be the measure by which to judge or equalize itself.

During the Neo-platonic amalgamation of the teachings of Aristotle and Plato, culminating with the works of Plotinus and Proclus[24] and the sixth century Alexandrian school of Ammonius,[25] the three Aristotelian forces of the good, the legislator and nobility and justice were also combined with eastern ideas of religion and kingship. Not only was Good replaced by God but also justice became synonymous with money.

As absorbed by Islam, Neo-platonism firmly expressed the divine rather than the social force for justice. Other than the shift in emphasis, however, Greek philosophy was well incorporated into the medieval milieu. It was not a metaphysical plateau above the real world, but people practically understood and applied it. For example, in the twelfth century, ʿAbd Rahman al-Khazini, presumably the royal treasurer from his *nisba*, introduced his treatise on the instrument for determining specific gravity with the following apology:

> Justice is the stay of all virtues, and the support of all excellences.[26]
>
> … In order to place justice on the pinnacle of perfection, the Supreme Creator made Himself known to the Choicest of His servants under the name of the Just; and it was by the light of justice that the world became complete and perfected, and was brought to perfect order – to which there is allusion in the words of the Blessed: "by justice were the heavens and the earth established." … Moreover, in order to [bring about] the preservation of the empire of justice, the Supreme God has made the side-members of man's body in pairs, and its middle members single; and He calls men to pursue the paths of felicity by the practice of justice and adherence to uprightness. … God has even set up justice as the criterion of judgment between His creatures, being content with equity. … Justice in action is two-fold: 1. self-government, which is the harmonizing of the natural endowments, the maintenance of equilibrium. … 2. control over others, … the performance of obligations to men, and the requiring of that performance on their part. …[27]
>
> … He provided for them, with constant goodness, by raising up among them just judges, their never-failing securities for justice. Of these there are three, answering to the several divisions of justice: 1. the glorious Book of God. … 2. the guided leaders and established doctors. 3. the balance, which is the tongue of justice, … the standard, by its rectitude for the settlement of men's altercations; the security of order and justice among men, in respect to things which are left to them and committed to their disposal; made by God the associate of his Kuran, which He joins on to the pearl-strings of His beneficence, so that the Supreme says: "God

> who has sent down the True Book and the balance." [Sura xlii: 16] and connects the benefit of the institution of the balance with that of the raising of the heavens, in the divine words: "and as for the heavens, He hath raised them; and He hath instituted the balance; transgress not respecting the balance, do justice in weighing and diminish not with the balance." [Sura iv: 6, 7, 8][28]

Aristotelian ethics were always part of a proper education, which even the Mongol onrush did not unseat. ʿAta' Malik Juvayni, born about 1226AD,[29] followed the same principles but appropriately stressed positive rather than natural justice in the introduction to his contemporary history:

> And from the point of view of reason it is necessary and essential that if the threat of the sword, which is the immediate menace, were to remain in abeyance and men were content with that which is promised in the next world everything would be confused; the common people, whose feet are bound with *What is restrained by authority* [Sura vi:65], would have their hands freed; the nobles would remain in the corner of calamity and the nook of tribulation; and some of the advantages of *And we have sent down iron, wherein residith dire evil, as well as advantage, to men* would be rendered null and void, for without this instrument the gates of justice and equity, which have been opened and flung wide by *And we have sent down the book and the balance* would be bolted and barred and the order of men's affairs would of a sudden be deranged. … He should prepare a certain person [Chingiz Khan] and make his nature the receptacle of all manner of power, and daring, and ruthlessness, and vengeance, and then by means of praiseworthy qualities and laudable properties bring it into a position of equilibrium.[30]

The most developed and therefore the most precise statement of the system of the universe was made by the pre-eminent intellectual of the thirteenth century, Nasir al-Din Tusi (597–672 H/1201–74 AD), whose services the Mongols were exceedingly fortunate to employ. In his *Aḥlāq/Ethics*, written slightly before Hulagu's conquest of the Ismaʿilis yet still studied in schools today, Tusi brilliantly declared the system which the Mongols accepted and under which they operated:

> The word "Justice" denotes the idea of equivalence, but to conceive of equivalence without regard to unicity is impossible. Now, inasmuch as unicity is particularized and distinguished as the remotest and the highest degree of superiority and perfection – the permeation of its operations from the First Principle (which is truly One) throughout all numerables … the nearer one is to unicity the nobler one's existence. This being so, no relationship is nobler than that of equivalence, … and, among virtues, none is more perfect than the virtue of Justice, as is obvious in the

discipline of Ethics, for the true mid-point is Justice, all else being peripheral to it and taking its reference therefrom. Now, just as unicity necessarily implies superiority (indeed, is the cause of permanence and consistence in existent things), so multiplicity necessarily implies inferiority (indeed, is the cause of corruption and abortion in existent things). … Equilibrium is the umbra of unicity, … Were it not for equilibrium, the circle of existence would not be complete,[31] …

… Now, Man is by nature a citizen, whose day-to-day life would not be possible without mutual assistance, … But mutual assistance depends on some serving others, and on a taking from some and a giving to others, so that compensation, equivalence and proportion shall not be lost. Thus, when a carpenter gives his work to a dyer, and a dyer gives his to a carpenter, equity results; but it may be that a carpenter's work is more or better than a dyer's and vice versa, so that a requirement necessarily befalls for a mediator and an adjuster – namely, money. Now money is a just mediator between men, but it is silently just; and the requirement for a rationally just being remains; if the adjustment between exchanges does not result by money (the silently just), aid is sought of a rationally just being, who assists money so that order and adjustment in fact come about. The rational being is a man, so that the requirement is for an arbitrator. From this discussion, it is obvious that the preservation of justice among men cannot be effected without these three things, viz., the Divine Commandment, a human arbitrator, and money.

Aristotle said that money is a just law, "law" in his language signifying regulation, administration, and similar notions. (This is the reason why the *sharīʿat* is called the Divine Law.) In the *Nicomachean Ethics* he says that the greatest law may be from God, that the second is of the order of the greatest, while the third is money. Thus, the Law of Almighty God is an exemplar of other laws, the second law is an arbitrator, who must follow the Divine Law, while the third law follows the second. In the revelation of the Koran, the very same idea is to be found, when He says: "And We sent down with them the Book and the Scale so that men might hold the balance; and We sent down iron, containing great harm and also benefits to men."

Money, which is the equalizer of diversities, is required for the reason that if there were not adjustment of diversities by diverse prices, association and negotiation in the various aspects of taking and giving could not be determined and organized. When money, however, is diminished for some and increased for others, equilibrium results, and the negotiation of the dyer with the carpenter becomes equitable. This has to do with civic justice, about which it has been said: The prosperity of the world lives in civic justice, but its ruination in civic tyranny.[32] …

… Now the just ruler is an arbitrator in equality, removing and nullifying these mischiefs; likewise, in preserving equivalence, he is the

> vice-generent of the Divine Law. Thus, of goods he does not award himself more than others, nor less of evils; hence the saying that "The Vice-generacy is a Purification."[33]

Tusi's statements were not idle words. The theory was put into practice in various ways. Foremost was the responsibility of the ruler for sound money. Government tampering with the medium of exchange was against God whereas providing a measure was for God. The standard consisted of pure metal and constant or proportional weight. A ruler was more praiseworthy the purer his coin and the higher its weight since the goodness of the coinage provided the means for prosperity. His control over money's component parts of weight and substance was a sign of divine legitimacy and was expressed by *sikka* or the sole prerogative of his name being on the coins.

These absolutely basic tenets were restated on the coin in the design or inscription. The simplest manner was to have one side proclaim divine law with a profession of faith. The other side represented positive law with the title of the ruler. Finally, the coin itself symbolized natural law.

Islamic numismatic history

In Islamic tradition, the divine and positive aspects were usually manifested through inscriptions. However, the Mongols created a larger monetary ethos by gathering from the various areas they conquered other practices derived from the Greek theory of money. In particular, the Mongols adopted three features from Zabulistan, which were not part of the Islamic monetary heritage. First, mint sites were organized in accordance with "nobility"; i.e. the capital of the empire or area had the highest weight coinage while secondary areas issued ones at a reduced proportion to it. This mint practice was clearly an interpretation of al-Farabi's body politic theory. Second, coinage, being self-justified or its purpose evident in itself, did not and should not change over time. The role of the ruler was considered to be that of a mere intermediary or guardian: therefore, for hundreds of years, the same type could and did exist. Third, non-verbal methods of communication in the form of images were used. The first two points of mint organization and anonymity of the ruler are explained in the following chapters as the coinage exhibits them; however, the latter point deserves an historical introduction since the Mongols used images on their coinage to powerful effect.

The development of the figural message for both divine and positive law had begun early in the history of coinage. For positive law, the practice started first with a simple design for the polity of the city-state and then advanced to the larger, imperial symbol with the bust of the ruler. Alexander's head[34] appeared in Bactria, the eastern area of his empire, for 200 years after he had conquered it. Eventually, other motifs made their way onto the field with an equally tenacious hold, lasting for hundreds of years and providing the east with a tradition of frozen coin types. Alexander's empire divided into three areas, the largest of which was

held by the Seleucids, who put the head of their founder on the coinage. Soon another immense landholder emerged, the Roman Empire. The Romans were steady administrators and continued the urban policy of Alexander. Selected regional sites were designated imperial mints, which, after Augustus, produced coins with the effigy of the current emperor. Thus, the west developed the habit of putting the image of the present holder of political power on the coin.

The imprint of the imperial head did not mean that all the coins so stamped were equal in value or that the money was meant for everyday use. The Romans managed their monetary affairs region by region, and the Aristotelian concept of money proved difficult to apply to a large empire. The Roman economy was only fully monetized in the eastern Mediterranean.[35] This situation reflected the more advanced economy of the entire area. The military confrontation between the Romans and the Parthians in eastern Anatolia and the Jazira did not alter their shared and fully monetized societies. Indeed, the Parthians had adopted the heritage of the Seleucids, putting the current ruler on their coinage. Their Sasanian successors, in turn, continued this practice.

Divine law also had been expressed by figures, which had been symbolic of special status; a god or muse had provided the polity or emperor with power or wisdom. For example, on Athenian League coins, the head of the helmeted goddess, Athena, empowered the city with victory. Then in the fourth century, as Constantine converted to Christianity, a new factor was introduced. The former symbols of favour from the religious pantheon coalesced into those surrounding the Christ, namely, either his enthroned figure or the cross. Concurrently, across the ancient battleground of eastern Anatolia, the Sassanians placed on their coinage the symbol of their Zoroastrian faith, the fire altar.

As these two protagonists, the Sassanians and Byzantines, who had the same way of looking at the structure of the world, wore each other out in war, the Arabs united and absorbed all the Sassanian Empire and more than half of the Byzantine one in the early seventh century. For about the first seventy-five years, the new Islamic Empire used the coins or borrowed the style, names, weights and metals of the conquered areas. Then transitional types emerged, which had political and religious images of the former Sassanian ruler and a standing caliph as well as religious symbols founded not on gods but on the act or place of devotion before the modified cross, fire altar or *ḥarba*.[36]

Ironically, as the new group settled into a political pattern similar to that of the areas it had conquered by forming a dynasty and a central focus of power, it denied its borrowed aspect totally. The Umayyad caliph, ʿAbd al-Malik b. Marwan (65–86 H/685–705 AD), used coinage as a symbol for and a method of unifying the Islamic lands after the civil war.[37] Not wishing to proclaim anything that would possibly offend the tenuously reunited Muslims, he created the first Islamic coinage. It announced God and His attributes on both sides: the message was that of equality found in the fellowship of humankind, whose cohesion resulted from God, not from a hierarchical polity. Even though the Umayyads were firmly placed as the first Islamic dynasty, the new coinage never mentioned one of them. ʿAbd al-

Malik did not appeal to personal or family loyalty. Rather, he made the only message on the coin that of the initiating power of the universe; nor did he or his successors make the prestigious gold dinars state the peripatetic center of power. Dinars always remained mintless even though struck only at the royal seat. Therefore, the change in political emphasis resulted in only a religious statement on the coins: there was no mention of the secular ruler or the religious messenger, Muhammad. The appeal to religion alone was unusual in monetary history.

As well as sublimating the role of the ruler for that of spiritual power, ʿAbd al-Malik abandoned images for calligraphy, thereby transferring symbolism from objects and people to words. If the need to stress Islam had not been so paramount because of the first civil war, there is no reason to suspect that Islamic coinage would have ever left this superb and traditional method of visual communication. However, in so doing, ʿAbd al-Malik also solved a problem of religious depiction. One of the immense battles Muhammad had experienced with the Makkans was their number of gods. The three main Makkan deities smacked of the same problem the Christians had with their God, the difficulty in defining Him as consisting of one or three parts. Only two hundred years earlier, the Council of Chalcedon had split the church into trinitarians and monophysites forever, provoking unrelenting warfare and persecution between the two views. The Jahiliya Arabs had images for all their gods, but the Christians depicted only one part of theirs, the Messiah. In retrospect, it seems that, according to ʿAbd al-Malik, those who could visualize a figure for their god did not believe in a truly single, all-powerful one. In contrast, the Zoroastrians did not depict their deity; nor did the Jews.

Given the unusual nature of its message, Islamic money warrants a clear definition. Islamic coinage can be defined as that coinage which contained the basic tenet of Islam, *Lā ilāh ilā Āllāh*/"There is no deity but God". Other aspects of God may have appeared in the inscription and often did, such as *waḥdahu lā sharīk lahu*/"He has unicity, He has no associate". Generally, the bearer of God's words was also identified by *Muḥammad rasūll Āllāh*/"Muhammad is the messenger of God".

A coinage could be Islamic without Muhammad's name but was not invariably Islamic even if it had the word *Āllāh*/"God". The word could appear alone or sometimes in phrases such as *li-llāhi*/"for God" or *al-mulk li-llāhi*/"Authority belongs to God", which were universal concepts in this period. Moreover, although the coinages with *Āllāh* were generally used in areas with Islamic rulers, the population was rarely fully Muslim. Religious diversity went even further: although the Georgians under the imperial khan, Mongka, produced a coinage identifying the trinity, many Christians in the area were monophysites. Finally, if a region minted money, it normally had a choice of using Persian or Arabic as the official language. In an area that was dominated by Arabic culture, the inscription may have contained *Āllāh* for God, if by Persian culture, then *Khudā*. Therefore, *Āllāh* alone did not proclaim that the people or coinage were Islamic; rather, the word related a belief in a supreme entity of variable definition. Therefore, since the religious and cultural content of the area was so diverse, it is incorrect to consider

prima facie that any coinage written in Arabic script, in the Arabic language or with *Āllāh* on it is Islamic.

If the definition is restricted to money that contained the Muslim religious formula only, many problems are eliminated. Such a definition also provides a basis for understanding the appearance of other languages and scripts in the period of this study. Examples of such deviations are a Georgian type that declared their Christian faith in Arabic script and their own royalty in Georgian letters. Further, the Mongols themselves declared their shamanic faith and named their ruler in the Mongolian language with Syriac script on one side while they gave the Islamic *shahada* in the Arabic language and script on the other side. Therefore, the following pages are not a study of Islamic money and the way the Mongols adopted and shaped it. Rather, they are about money, some of which was Islamic.

Umayyad coinage lost its special religious feature with the advent in little more than half a century of the next dynasty. The ʿAbbasids removed the capital from Syria to ʿIraq-i ʿArab and the main mint to Muhammadiya or al-Rayy in al-Jibal. Legends resumed the Sassanian tradition: the ruler's name re-appeared on the coinage, and it was soon accompanied by that of his governor in the province and, often, the financial official. An increasing roster of names, representing the hierarchy of power, including the mother of the caliph, developed in the first ʿAbbasid period of 132–218 H/749–833 AD.

As the ᶜAbbasid Empire shrunk,[38] in the twelfth century the Rum Saljuqs and some Jaziran principalities incorporated a special minting of an earlier ʿAbbasid caliph, al-Muqtadir (295–320 H/ 908–32 AD), who was noted for his non-monetary issues used for gifts. On some of his medals, beautifully executed animals appeared; but on one his name and title took up both sides of the entire field. There was a date but no mint, and the *shahada* was relegated to the margin.[39] The Rum Saljuqs took their cue from this type of commemorative or donative piece: they put the caliph's name on one side and their sultan on the other. The higher entity that supported them both was pushed to the side. Eventually, the caliph began to be considered a symbol for the divine order as God's shadow on earth while the sultan was considered the symbol of the political order. This relegation of the *shahada* to the margin of the coin, or even its absence, was atypical of Islamic coinage but was part of the monetary situation which the Mongols encountered. Later in these western areas, the Mongols revived divine symbolism in its proper manifestation long before they eliminated the caliph in 1258 AD. They did not consider the caliph an appropriate replacement for God. In fact, in 1222 AD with the advent of their provincial administration of Samarqand, the Mongols had begun to gravitate toward the authentic tradition of using the *shahada.*

However, the Mongols did retain another tradition from the Turkish principalities in the Jazira. The latter had re-introduced an important choice in symbolism with images. The polities had borrowed ancient Byzantine and Sassanian religious and political figures, many of which were from rare types hundreds of years old that had been kept in special treasures in the area.[40] Simultaneously in the east, the Mongols encountered the images still lingering on the coinage from the hoary

Bactrian tradition in Tukharistan and Zabulistan. From these two sources, one the inheritor of Byzantine – Sassanian and the other of Alexandrian symbols, a synthesis emerged which finally introduced images into Islamic monetary practice. As a result, the Mongols used both political and religious images as well as inscriptions on their coins.

However, depictions of the three forces of law did not need to be restricted to figural representations of gods and their aspects, acts of devotion or rulers: the Muslims made their contribution to symbolism with geometric design. On coinage, the mathematical representation of Pythagorean concepts was begun by the Fatimids, for whom circles depicted the spheres of justice. Their successors, the Ayyubids, restricted geometric symbolism to the political sphere: the triangle, square and hexagon defined the territories subject to a leading prince. The Mongols used geometric representation to indicate natural justice: the relationship of shapes signalled the weight of the coin. As a result, in the twelfth and thirteenth centuries, geometric language, which had been developing for 300 years, met other symbols from the older figural and inscriptional heritages.

In conclusion, classical Greek economic theories were adopted by succeeding thinkers. First, the important Pythagorean concepts of ordering the universe by mathematical relationships were incorporated into the teachings of its leading rival, the Peripatetic School, which focused on human relationships. Then, the work of the most outstanding exponent of that group, Aristotle, was amalgamated with that of another leading thinker, Plato, in the centuries just prior to the rise of Islam. The synthesis, now termed Neo Platonism, was a strong force in the development of the ideas of the tenth century philosopher, al-Farabi, who was called the "Second Aristotle". Thus, the concepts of Aristotle, Plato and Pythagoras combined to form a compatible and coherent theory of human society which was clearly understood and described by intellectuals, the most famous being Nasir al-Din Tusi, of the thirteenth century.

In essence, philosophy explored justice as the cement that held society together. There were three great divisions, which encompassed the divine, positive and natural aspects of law. The last portion was divided into two sections, one based on biology and the other on mechanics. The latter was specifically symbolized and made operative by coinage. As the last of the three aspects of justice, money recorded its position relative to divine and positive law with written or figural symbols. From the inception of money through the thirteenth century, these symbols were generally balanced between the two higher spheres except for the beginning of Islamic coinage. Not only did the early Muslim rulers remove allusions to positive law, but they also eliminated all non-verbal symbolism. The regent soon re-emerged in inscriptions, but images were not re-instated in any form, geometric or pictorial, for another 200 years.

The Mongols coalesced many of these trends for their purpose and structure of monetary practice. In their practical application of archaic and Islamic theory, coinage was a function of government upheld by divine power; thus, money was part of the basic order of society.

In the eighteenth century, there was little that the new science of "economics" could add to the knowledge already known in the thirteenth century. In fact, not until the turn of the twentieth century were substantial advances made in economic theory.[41] The present society distinguishes itself by a different definition of money: for example, money is no longer a static medium of exchange; rather, it suffers greatly from inflation; nor is it a permanent and valuable item in itself since base metal, paper and plastic are used as currency. Further, since generally the ruler is democratically elected, the person's image or name no longer appears on the coinage. Finally, divinity is removed from the constitutional basis of several leading countries. Today, our heritage is dim; yet holdouts such as England still place the monarch's effigy on money.

On the other hand, the heritage described in this chapter is by no means dead. In particular, it is significant that for years Europeans have worked towards the creation of a universal currency. Nearing the final stages, the British government is still severely split in keeping a national or accepting an international standard of account, the Euro. The critical controversy has boiled down to the fact that:

> money exists to facilitate the welfare of citizens, not the powers of government. No sense can be made in the debate on Emu, both within the UK [United Kingdom] and in the EC [European Economic Community] as a whole, if this point is not remembered. The question must then be whether the long term interests of the citizenry are best served by treating money as within the arena of politics or as part of its constitutional framework.
>
> Nobody would question that the administration of justice must be beyond the purview of party politics. Is this not true of money as well? When one contrasts the experience of the UK under politically managed money with that of Germany under a money managed by its central bank or of the UK under the gold standard, the answer seems clear. The ability of a government in possession of a temporary majority in the House of Commons to manipulate the currency in order to secure a renewal of power from a bribed electorate is not an expression of effective democracy. It is its abnegation.
>
> The case for an independent monetary authority is strong. But a European money is likely to prove the sole route to monetary stability that is also politically credible. Consequently, acceptance of the long term objective of monetary union is not contrary to the interest of the people of the UK, however contrary it may seem to those people who expect to rule over them.[42]

At no time can a government treat money as a minor aspect of its programme. Without monetary stability, all other economic policies are forfeit. In particular, a universal money protects regions from disparities in local administration. The following study explores the way the Mongols in Greater Iran perceived the need for such a value system and the methods they used to attain it.

Sources and method

The Mongols conquered the heartland of Islam and brought to a close the ethos of a society united under one spiritual head. The fact that the Mongols killed the caliph must give pause to numismatists. Although the Mongols issued money with the Muslim profession of faith in territory that was generally Islamic, they were not inheritors of either the Muslim or Iranian tradition. In fact, the cohesive force of their society was not based on a single personage, either spiritual or political, nor was its interpretation based on Hellenistic doctrine.

The utter dispensability of the caliph should be the model for the study of Mongol coinage. As often as not, the Mongols ignored Islamic practices. Therefore, although Mongol coinage in the Islamic area must be approached through the knowledge of earlier activity, that insight is most valuable for identifying the cataclysmic changes that occurred in the thirteenth century. In other words, Mongol money was not Islamic money; a reader does not have to be familiar with Islamic numismatics to understand the development of Mongol economics.

Rather, it is the student of Islamic money who has to work the harder. There were many local practices that the Mongols did not follow. The first important one is that coinage was struck every year. The second is that the main mint was the political capital. The third is that the normal goal was an array of gold, silver and copper coinage. The fourth is that a change in weight is always a reduction and often coupled with debasement of the alloy. The fifth is that the name of the ruler signified his control over the area and his existence at the date on the coin. The sixth is that a date and mint, which are the special features of Islamic coinage, appeared on all money. None of these points can be expected in Mongol numismatics.

Coin sources

There are two further concepts which particularly affect the method for studying this coinage. The first deals with the basic source of information, a catalogue of the material. Cataloguers, accustomed to standard practices in Islamic coinage, may suggest the reading of an inscription even if it is not absolutely clear. Further, they generally do not indicate minor variations of the design. The accuracy of full information is imperative in determining die analysis, officials and production locations of this coinage. As a result, previously compiled catalogues have rarely been used in this study. In fact, there is no full catalogue of Mongol coins. Only special studies, brief reports of rare coins and descriptions of specific cabinets exist in spite of the fact that the coinage is copious, of high technical and artistic quality and belongs to a significant dynasty. Nevertheless, Mongol money had not been organized and studied systematically until this endeavour.

For these reasons, this work is based on the personal examination and photography by the author of approximately 4,900 coins from many public and private collections. During each visit, every coin possible was photographed. Each coin was assigned a number if keepers of the collection had not already done so

and every coin weighed when possible or the weight taken from the cabinet when there was no access to a scale. Every scale was not checked with a control weight since a previous study of Mamluk glass weights had shown that museum balances were fairly consistent. Then, each coin was given a written description which included all design features, calligraphic styles, decorations, starting position of the marginal legends and the legible parts of the inscription. Since these details are not listed in any published catalogue, reference is rarely made to one. Instead, the best individual coin of the type or series is cited. Those publications that are mentioned contain types not photographed but needed to fill important lacunae.

An unnecessary concern for this book is the backbone of traditional numismatics, that is, the study of hoards. Only a few exist, and they were not found outside the Mongol domain. Two particular points of information are gathered from hoards: the chronological development of a coinage and the extent of a monetary system through its circulation patterns. For the first point, Islamic coinage conveniently has dates, rulers and mint sites, which reduces greatly the reliance on hoards for such information. Moreover, design development was specific in Islamic and Mongol coinage rather than derivative and ultimately degenerative as was the case with many other types of coinage. Thus, any circulation information gleaned from hoards of Mongol money is minor compared to the better source of the date and number of mint sites that used a particular style. Therefore, this study focuses not on where coins have been found but where they were made, and hoards have not been separated from the mass.

Metrology

The second point is the current mystification of weight analysis. Although the importance of weight was known at the beginning of numismatics in the sixteenth century, it dropped out of sight to be revived, only by some, later in the nineteenth century. The pioneers used simply to average a list of coins and call that the weight standard. The technique is disapproved today. Rather, modern students of Islamic numismatics have adopted the frequency distribution model, which is a method more scientifically based on statistics. When organized on a graph, as in this study, each coin is counted on a weight continuum. It is positioned in the positive quadrant whose vertical axis is the number of coins and the horizontal one the weight in grams. The highest frequency or number of coins that appear at a certain weight is the standard of that coinage.[43] The method has completely overshadowed that used before the middle of the century and has adopted sophisticated measures such as standard deviation and chi-square tests. However, the method is based on probability theory that expects a round hill-like curve for a normal distribution. Unfortunately, the Mongols did not leave anything to chance. Every coin had to be within a certain range, so tests of the curve provide little information. Moreover, depending on the technique of production, the type of curve varied. There were either flat, round or right-skewed curves but rarely left-skewed ones that are often found in other coinages. Therefore, since the frequency distribution method did

not supply enough information, it is used here in combination with two additional methods.

During the preparation of this study, it became evident that averaging is one way to determine quickly Mongol weight standards. This method was the only possible one when there were ten coins in normal condition or less. In those cases, it was a ready measure necessary to situate a coinage within a system even though it may not have defined it completely. On the other hand, the frequency distribution method displays previously unknown information about the remedy or limits of each coinage and the consistent use of old coin to match the weight of subsequent mintings. Therefore, since this study consists of overlapping coinages, the frequency distribution method identifies precise changes and the limits of the range. Therefore, the ultimate method used is the mid-point of those limits. This approach provides a standard even when there are fewer than ten undamaged coins, which is the minimum for applying the frequency distribution method. The mid-point is not always the peak of the distribution nor the actual standard when the coinage is close to the weights of other types. Nevertheless, it has consistently proven to be a reliable gauge since the important factor in this method is not locating a peak but recognizing the limits that the weighers accepted. It is evident that for a long period the mint workers did not aim for one weight but accepted a coin between two of them. Usually, the cut-off point is obvious from a sudden drop so that often not a single coin exists beyond the decreed parameters. The limits, with few exceptions, were less than one carat. The mid-point method was discovered in this study only because minutely detailed weight graphs were prepared by this researcher and exceedingly tight quality control was enforced by the Mongols.

Since most coins are within one-half carat of a precise standard, lower weight specimens in this study turned out not to be symptomatic of loose quality control, debasement or wear but on a standard that can be identified regionally and temporally.

The mid-point technique, therefore, shares the salient feature of the average, especially for studying rare series. A return to the original method has recently been suggested to solve some problems in the frequency model. Further,

> the conventional method of producing a histogram has an unfortunate effect that can lead to a false interpretation of the facts. In producing the histogram, there are two parameters to be selected: the range of weights covered by the width of a single bin, and the relative positions of the bins along the weight axis. … A truer picture of the distribution would be obtained if the arbitrary choice of bin position were eliminated by averaging.[44]

Because of this particular problem of bias, the weights of Mongol coins were not grouped into "bins" or clusters in this report. Rather than compacting them into the usual five- or ten-hundredths of a gram, weights were posted at the much finer division of one-hundredths of a gram. This proved practical because the

Mongols produced a very tightly controlled coinage, which was more accurate than the money of today.

The rationale for the approach was that the gram belongs to a modern ponderal system: to group weights in any way prejudiced the calculations of a different standard. Rather, the coinage had to define itself. As it turned out, the Mongol coinage encountered in this study was minted on four different standards. They were all called the *mithqāl* or "weight" but varied slightly. The heaviest remained from the Romans/Byzantines world and weighed 4.48 grams. The next weighed 4.30 grams and was a legacy of the Seleucids, the dynasty that inherited Iran from the conquests of Alexander the Great. It continued to be used by the Sassanians, who were the rivals of the Byzantines. The third weighed 4.24 grams. Its origin is not clear, but it was the system favored by the Mongols. The least one, whose origin is also unclear, was the predominant one at the arrival of the Mongols and weighed 4.125 grams. The system of accounting for the *mithqāl*, whatever its actual weight, did not use the Mediterranean base 10 but the Mesopotamian base 60. As a result, there were 24 divisions that were called carats, the term taken from the seed of the carob tree as *kharruba* or *qirāṭ*. The actual weights of these theoretical divisions are listed in Table 1.1.

After a decline apparently in late antiquity to the lowest *mithqāl*, the Mongols helped but were not alone to improve the standard. For example, in Syria and Egypt, "the increase in weights of the ratls in Northern Syria, the use of bigger measures of capacity for grain, and the continuous increase in the standard parcels

Table 1.1 Mithqal weights

Carat	*Grams*			
	Byzantine	*Sassanian*	*Mongol*	*Pre-Mongol*
1	0.1866	0.1792	0.1766	0.1719
8	1.493	–	1.413	1.375
9	1.680	1.613	1.589	1.547
10	1.866	1.792	1.766	–
11	2.053	1.971	1.942	–
12	2.240	2.150	2.119	2.063
13	2.426	2.330	2.297	2.235
14	2.612	2.509	2.472	2.407
15	2.799	2.688	2.649	2.579
16	2.987	2.867	2.826	2.750
17	3.173	3.046	3.003	2.922
18	3.359	3.226	3.179	3.094
20	3.732	3.584	3.532	–
22	4.105	3.942	3.885	3.783
24	4.478	4.302	4.238	4.125

used for the shipment of spices in Egypt, … are in conformity with a tendency perceptible in many Muslim countries over many centuries, namely, the use of progressively heavier weights".[45]

Purity and alloy

The alloy as well as the weight of a coinage is an important ingredient which must be considered in any full study. However, it is an expensive addition to the knowledge of a coinage, and a debate exists over which of the variety of techniques provides the most accurate results.[46] Fortunately for this study, after moving to Arran, the Mongol administration generally struck very pure coins. The specialists of the laboratories of the Ashmolean Museum, the British Museum and Spink and Sons were exceedingly kind to perform at no cost X-ray fluorescence analysis, a non-destructive technique, on 52 coins and specific gravity tests on the gold. The results are shown in Tables 1.2 and 1.3.

Table 1.2 Alloy analysis of sample silver coinage

			Parts per hundred			
Date	*Mint*	*Ruler*	*Silver*	*Copper*	*Gold*	*Lead*
o 648	Baghdad	ʿAbbasid	95.40	2.50	1.00	1.10
o 658	Baghdad		95.60	2.60	1.00	0.80
b 684	Baghdad		89.84	9.44	0.72	0.00
b 687	Baghdad		91.54	6.92	1.02	0.52
b 69x	Baghdad	(Gaykhatu)	91.79	6.65	0.75	0.81
b 696	No mint	Reform	95.94	2.40	0.67	0.99
b 699	Baghdad		98.88	0.28	0.85	0.00
b 701	Baghdad		99.16	0.00	0.84	0.00
b 701	Baghdad		99.13	0.00	0.87	0.00
o 643	Tabriz	Qa'an (Hex)	95.50	2.80	1.00	0.70
b 6(7)9	Tabriz		89.93	9.17	0.00	0.89
b 684	Tabriz		60.40	37.92	0.34	1.34
b 686	Tabriz		94.15	4.10	0.98	0.77
b 691	Tabriz		86.30	12.16	0.00	1.55
b (69)3	Tabriz		84.44	14.02	0.50	1.05
b 6(9)4	Tabriz	(Baydu)	98.84	0.34	0.82	0.00
b 696	Tabriz	Reform	89.00	9.65	0.52	0.83
b 699	Tabriz		92.34	6.78	0.89	0.00
b 700	Tabriz		98.67	0.32	1.00	0.00
b 684	Shiraz		90.49	8.15	0.64	0.72
b 700	Shiraz	Muharram	98.56	0.68	0.76	0.00
b 700	Shiraz	Shawwal	99.12	0.00	0.88	0.00
b (679)	Kirman	Qutlugh Turkhan/ Abaqa	93.68	5.39	0.94	0.00
b 68x	Kirman	Suyurghatmish/ Arghun	94.83	4.20	0.97	0.00
b 698	Kirman	Reform	98.85	0.48	0.67	0.00

Table 1.2 continued

			Parts per hundred			
Date	*Mint*	*Ruler*	*Silver*	*Copper*	*Gold*	*Lead*
b (701)	Kirman	Muzaffar al-Din/ Ghazan	87.57	11.10	0.68	0.65
b n.d.	Mawsil	Hulagu	84.81	14.25	0.00	0.94
b 673	Mawsil		84.97	13.98	0.00	1.05
b 685	Mawsil		85.62	13.08	0.51	0.79
b 698	Mawsil	Reform	95.51	3.05	0.75	0.69
b 698	Mawsil		98.65	0.58	0.00	0.77
b 654	Tiflis	Mongka Jumada I	91.08	7.29	0.79	0.84
b 656	Tiflis	Mongka	91.86	7.68	0.00	0.45
b 669	Tiflis	Hex Shawwal	92.94	6.55	0.00	0.51
b 670	Tiflis	Hex Dhu al-Hijja	88.22	11.05	0.00	0.73
b 681	Tiflis	David/Abaqa Jumada II	85.51	13.63	0.00	0.86
b d.g. (685–8)	Tiflis	Dimitri II/ Arghun	64.23	35.01	0.00	0.76
b d.g. (685–8)	Tiflis	Dimitri II/ Arghun	69.38	29.17	0.52	0.93
b d.g. (702)	Tiflis	Wakhtang III/ Ghazan	73.28	25.33	0.50	0.89

Sources: (o) Research Laboratory for Archaeology and the History of Art, Oxford University: Catherine Mortimer.
(b) Laboratory of the British Museum: Michael Cowell.

Notes
d.g. = date garbled; 0.00 = less than 0.30.

The analyst from the Anti-Forgery Bureau noted that X-ray fluorescence reveals the material on the surface of the coin whereas specific gravity takes into account the whole body of the coin. However, specific gravity cannot be performed on the silver because of the minute weight of these coins and the close specific gravity weight of silver to copper. For these reasons, specific gravity for gold is a better indication of alloy, especially when purity is relatively high. Conveniently for this study, the British Museum X-ray fluorescence tests on the gold corroborates the specific gravity analysis.

Some specialists have been concerned particularly about trace elements in order to locate the source of metal or to determine whether or not old coin was melted down for a new issue. These questions are not particularly relevant for Mongol money. Geographers before and after the Mongol presence frequently located mines in their reports so that today's assayer is generally redundant for this purpose. Further, old coin undoubtedly was melted but not to the extent of being completely re-coined as the weight charts prove. Further, the Pax Mongolica, comprising the

Table 1.3 Alloy analysis of sample gold coinage

			Parts per hundred				*Spec*	
Date	*Mint*	*Ruler*	*Gold*	*Silver*	*Copper*	*Lead*	*grav*	*Grams*
b 673	Shiraz	Abish	95.83	3.37	0.80	0.00	18.72	9.64
b 687	Hurmuz	Sayf al-Din	98.52	1.48	0.00	0.00	19.02	5.88
b 698	Shiraz	Reform	100.00		0.00	0.00	0.00	19.17
b 698	Kirman	Reform	95.86		3.50	0.65	0.00	18.40
m 691	Tabriz	Gaykhatu	76.00				16.03	4.63
m 693	Tabriz	Gaykhatu	76.00				16.04	4.25
m –	Tabriz	Gaykhatu	78.00				16.24	4.37
m (69)4	Tabriz	Baydu	78.00				16.22	4.37
m (694)	Tabriz	Baydu	78.00				16.22	4.41
m (694)	(Tabriz)	Baydu	76.00				16.02	4.45
m (69)4	Tabriz	Baydu	77.00				16.17	4.45
m (69)4	Tabriz	Baydu	78.00				16.21	4.46
b 698	Tabriz	Reform	98.77	1.23	0.00	0.00	18.97	–

Sources: (b) Laboratory of the British Museum, Michael Cowell.
(m) Monnaies Numismatic Consultants Ltd. (MNC).
International Numismatic Anti-Forgery Bureau, Farnham, Surrey: E. G. V. Newman.

greatest land empire the world has known, would have allowed vast circulation of these coins, particularly in light of the repeated attempts to create a monetary union. Therefore, it would be almost impossible to trace the output of a mine or region from this enormous coinage.

Production

An unimportant problem for this study is the calculation of the money supply. Knowing the absolute output is one way to estimate the monetization of pre-industrial societies and thereby to gauge their position on the inevitable road to capitalism. Since the basis of the technique is the number of coins that can be struck from each die, the number of dies are identified and counted. However, this method is inappropriate for Mongol coinage because different sections of the die were prepared at different times and places. The fact that common parts, such as the linear designs and central inscriptions, seem to have come from the same source, while the date, mint, ruler's name and some decorations vary, suggest rather that core dies were mass produced. Therefore, new dies were not created because old ones broke from wear. Moreover, the Mongols kept old dies in stock for years. Not only were dies retained for a long time, but also the opposite situation occurred; many were used only for a specific minting. Mongol coinage has many examples of an emission for one month or even one day, the precise date engraved on the die. Such specificity is an extreme example of the normal Islamic practice of stating the year of minting on each coin. This general practice required that any die coming into operation just before the end of the year would be discarded

Table 1.4 Tabriz production schedule

Date	*Metal*	*Type*	*Reverse marks*	*Comments*
638	Ag	Bow		
639	Ag	Bow		
640				
641				
642	Ag	Standing arch		
643	Ag	Hexagon		
644	Ag	Horseman		New weight
645				
646				
647				
648				
649				
650	Ag	Hexagon	Rajab	New weight
651	Ag	Hexagon		
652	Ag	Hexagon		
653	Ag	Hexagon		
654				
655				Hamadhan
656	Ag	Hexagon		
657				Ganja
658	Ag	Hexagon	Star	
659	Ag	Hexagon	Star	
660				al-Mawsil, Tiflis, Naysabur, Tus, Astarabad
661	Ag	Hexagon	Daisy	
662	Ag	Hexagon	Daisy	
663				
664	Ag	Hexagon	Daisy (Abaqa)	Tiflis weight and die change
665	Ag	Hexagon	Daisy/ Trident	Jazira and ʿIraq-i ʿArab reorganized
666	Ag	Hexagon	Trident	
667	Ag	Hexagon	Trident	
668	Ag	Hexagon	Trident	
669				
670				
671	Ag	6-lobed	Shawwal	New weight
	Ae	6-lobed		No date
672	Ag	6-lobed		ʿIraq-i ʿAjam mints opened
673	Ag	6-lobed	Shawwal	
674	Ag	6-lobed		
	Ag	Mongolian	Star	
675	Ag	Mongolian	Star	
676	Ae Au Ag	Mongolian	Star/Circle	
677				

continued …

Table 1.4 continued

Date		*Metal*	*Type*	*Reverse marks*	*Comments*
	678	Ae Au Ag	Mongolian	Circle	New weight
	679	Ag	Mongolian	Circle	Khurasan mints reopened
	680	Ag	Mongolian	Circle	
	681	Au Ag	Mongolian	Circle/Star (Ahmad)	
	682	Ag	Mongolian	Star	
	683	Ae	Mawsil Rx		Date unclear
		Ag	Mongolian	Star	New weight
	684	Ag	Mongolian	Star	
	685	Ag	Mongolian	Star	
	686	Ag	Mongolian	Star	
	687	Ag	Falcon	Nothing	
	688	Au Ag	Falcon	Nothing	
	689	Ag	Falcon	Nothing	
	690	Ag	Falcon	Nothing (Gaykhatu)	
	691	Ae Au Ag	Mongolian	Trident	
	692	Ag	Mongolian	Trident	
	693	Ag	Mongolian	Trident Shawwal	Ch'ao paper money
	694	Au Ag	Mongolian/ Persian	Trident/ Circle	(Baydu/Ghazan)
	695	Ag	Persian	3 circles	
	696	Ag	Persian	Nothing	
		Ag	Pentagon/Mongolian		Baghdad
	697	Ag	Pentagon/Mongolian		New weight
	698	Au Ag	Pentagon/Mongolian		
	699	Au Ag	Pentagon/Mongolian		
	700	Au Ag	Pentagon/Mongolian		
	701	Ag	Pentagon/Mongolian		
	702	Au Ag	Pentagon/Mongolian		
703					
	704	Au Ag	Pentagon/Arabic		
705					(Uljaytu)
	706	Ag	Pentagon/Arabic		
707					
	708	Ag	Pentagon/Arabic		
	709	Ag	Pentagon/Arabic		

Notes
Dates on the far left indicate that presumably no minting occurred since no coins have been found.
Au – gold, Ag – silver, Ae – copper

Table 1.5 Weight standards for silver coinages: chronological chart of main mints or types

Type/area	*Date*	*No. of specimens*	*Grams*	*Carats*	*Proportion of mithqal*
Khānī	617–19	9	5.20	28	–
ʿAdl	618–19	26	3.09	18	3/4
Allāh	619–24	16	various	–	–
Shahada	630–1	14	2.75	16	2/3
Tiflis	628	23	2.61	14	3½ D
Artuqid	624–31	48	2.83	16	2/3
Tiflis	637–8	9	2.61	14	3½ D
Arran	638–40	8	2.83	16	2/3
Rum Saljuq:					
Lion	638–41	–	2.92	17	7/10
Horseman:					
Ulūsh and Sivas	642–6	38	2.75	16	2/3
Tiflis – Guyuk/David	645	10	2.51	14	3½ D
Tiflis:					
Mongka/David	650–1	7	2.75	16	2/3
Mongka	652–				
	655 Safar	21	2.75	16	2/3
	655–7	13	2.51	14	3½ D
	657–9	39	2.75	16	2/3
Hex	660–4	22	2.75	16	2/3
Hex	665–80	64	2.61	14	3½ D
Curved Hex	672–3	4	2.61	14	3½ D
Mongolian	680–98	40	2.33	13	–
al-Mawsil	660–4	19	2.92	17	7/10
	664–71	29	2.75	16	2/3
	671–8	21	2.61	14	–
	678–83	9	2.43	13	–
	683 on	40	2.47	14	3½ D
Tabriz					
Hex	650–1	106	2.83	16	2/3
Hex	661–5	118	2.83	16	2/3
Hex	665–8	45	2.83	16	2/3
Comb	671–6	116	2.75	16	2/3
Mongolian	678–83	115	2.43	13	–
Mongolian and animals	683	56	2.33	13	–
Mongolian and Persian	683–96	113	2.47	14	3½ D
Mongolian and Arabic	698–709	633	2.12	12	1/2

before its production possibilities were exhausted. Moreover, for most of the Mongol Tābriz coinage, there are almost no die duplicates, which is a necessity for the calculation of output in this method. Therefore, unless actual mint records are discovered, there is no way to determine quantitatively the total output. However, in relative terms, chroniclers of the period and the vast number of coins still extant corroborate each other. The amount of money from the later portion of this review far exceeded any known in the Near East to that date.

Since the coinage is numerous, the study had to be limited. Therefore, the focus is the role that Tabriz played in the unfolding of Mongol monetary policy. For most of the time, the city was the centre of production and decision-making. Its minting history is presented in Table 1.4 overleaf. The first and most important point to note is that there were lapses in its activity. The second is that there were basically only two major reverse types, one with the hexagon design and the other with the Uighur script. The third point is the preponderance of silver. The weight relationship of Tabriz's coinage to foreign and other Mongol regional types before final unification can be determined from Table 1.5.

Because of the study's restriction to central Mongol policy, a number of other coinages have hardly been mentioned, in particular those minted by vassals, such as the Cilician Armenians,[47] the Rum Saljuqs,[48] nor a detailed study of the regional coinages of the Jazira. A great deal more knowledge has been obtained from the collected material than can be told in these pages. Nevertheless, by exploring the power of the centre, this review is a start for appreciating a unique and revolutionary financial system.

Notes

1 Aristotle, *Nicomachean Ethics*, in *The Ethics of Aristotle*, trans. D. P. Chase (London, 1911; reprint, 1947), Book I, 1 (page reference is to reprint edition).
2 *Ibid.*, Book I, 2.
3 Aristotle, *Politics*, in *Aristotle's Politics*, trans. William Ellis (London, 1912), Book 10, 18–19.
4 Aristotle, *Ethics*, Book I, 2. Further discussion in Book V, 103, in which the forebear of the Islamic maxim appears as "in respect of the other virtues and vices commanding some things and forbidding others".
5 Aristotle, *Politics*, Book 10, 18–19.
6 Aristotle, *Ethics*, Book I, 2.
7 Abū Nāṣr al-Farabī, *al-Farabī on The Perfect State: Abu Nasr al-Farabī's Mabadi' Ara' Ahl al-Madīna al-Faḍla*, trans. Richard Walzer (Oxford, 1985), §5, 233.
8 *Ibid.*, §6, 237.
9 *Ibid.*, §4, 231.
10 Aristotle, *Ethics*, Book V, 106–7.
11 *Ibid.*, 111.
12 *Ibid.*, 113.
13 *Ibid.*, 114.
14 Value is not a synonym for price, but price is a reflection of value. Value is a positive and emotive term whereas price is a numerical one of equivalence. The difference can be deduced by comparing a simple phrase such as "What value honesty, what value a house?" to "What price honesty, what price a house?" Value shows importance or hierarchy whereas price is numerical and specific to a central point.
15 Aristotle, *Politics*, Book 9, 16.
16 Aristotle, *Ethics*, Book I, 6.
17 *Ibid.*, Book 5, 113.
18 *Ibid.*, Book 9, 222.
19 Aristotle, *Politics*, Book 11, 20.
20 *Ibid.*, Book 10, 18–19.
21 *Ibid.*, Book 11, 20.
22 *Ibid.*, Book 9, 17.
23 *Ibid.*, Book 10, 18–19.
24 al-Farabī, §III, 8.
25 *Ibid.*, 11.
26 N. Khanikoff, "Analysis and Extracts of 'Book of the Balance of Wisdom'", *Journal of the American Oriental Society* 3 (1860), which was a translation of large portions of al-Khazini's treatise. The treatise was later edited and published as al-Khazini, *Kitāb Mizān al-Hikma* (Hyderabad, DN, 1359/1940).
27 *Ibid.*, 4–5.
28 He goes on to emphasize the importance of natural justice: "The Supreme God also says 'weigh with an even balance.' [Sura xvii:37] Indeed, the balance is one of the Supreme God's lights, which He has bountifully bestowed upon His servants out of the perfection of His justice, in order that they may thereby distinguish between the true and the false, the right and the wrong. ... The balance is an instrument which, of itself, declares its own evenness or deflection, and is the means of recognizing the rectitude or deviation therefrom of other things. It is on account of the great power of the balance, and its binding authority, that God has magnified and exalted it to such a degree as to rank it with His Book and the sword, in the divine words: 'and we have sent down, with them, the Book and the balance in order that men may do justice; and we have sent down the cutting blade, which has exceeding force.' [Sura lvii:25] So, then, the balance is one of the three supports of that justice by which the world stands, and justice is called 'God's balance among His servants,' both on account of this relationship of the balance thereto, and because it typifies the justice of the last day, clear of all injustice in its sentence, which is signified by the words of the Supreme God: 'shall not, then, a soul be wronged at all?' [Sura xxii:48] and 'he to whom the balance with just measure shall be given, will have much good done to him. [Sura xxi:48]." *Ibid.*, 6–8.
29 ʿAla-al-Dīn ʿAtā-Malik Juvainī, *Genghis Khan: The History of the World-Conqueror*, trans. John Andrew Boyle (Manchester, 1958; reprint, 1977), xv.
30 *Ibid.*, 17–19.
31 Nāṣr al-Dīn ṭūsī, *The Nasirean Ethics by Nasir al-Din Tusi*, trans. G. M. Wickens (London, 1965), 95.
32 *Ibid.*, 97–8.
33 *Ibid.*, 99.
34 It is debatable whether the bust depicted Alexander or the young Heracles, a warrior hero. Since the other side held the head of Zeus, in terms of the theory of this study, it seems the intent of the image was to show Alexander.
35 Kevin Butcher, "Coinage in Roman Syria: Northern Syria, 64 BC to AD 253", PhD. thesis, University of London (London, 1991).
36 The *ḥarba* may have been a political symbol as well; Estelle J. Whelan, "The Origins of the Mīḥrāb Mujawwaf: A Reinterpretation", *International Journal of the Middle East* 18 (1986); 205–23.
37 Michael L. Bates, "History, Geography, and Numismatics in the First Century of Islamic Coinage", *Révue Suisse de Numismatique* 65 (1986); 231–62.

38 The circulation pattern of ʿAbbasid silver during this period is discussed by Ludger Ilisch; "Ein Dirhamfund des Frühen 10. Jahrhunderts aus der Gegend von Diyarbakir", *Münster Numismatische Zeitung* (*Holger Dombrowski Münzenhandlung*) Intermünz-Kurier 83 (March 1979), vii–xiv, plates.
39 An inscriptional piece made in 302 H is No. 97 with plate, *Coins of the Islamic World in Gold, Silver and Copper: Auction* 34, Spink Taisei Numismatics Ltd, Zurich (June 19, 1990): 20.
40 Wayne Sayles, "Historical event inspired Turkoman coin type", *Celator* 3.5 (1989): front page, ff.
41 M. Schabas, "Alfred Marshall, W. Stanley Jevons, and the Mathematization of Economics", *ISIS* 80 (1989), 60–73; 60.
42 Editorial, "Mrs. Thatcher and Emu", *The Financial Times*, 2 November 1990, 20. Within the month of the publication of that article, the Prime Minister stepped down after more than eleven years in power. The soundness of money can still, in part, affect the fate of a ruler.
43 G. F. Hill, "The Frequency-Table", *The Numismatic Chronicle*, series 5 (1924), 76–85.
44 Stephen N. Coppe, "The statistical analysis of coin weights by computer and a rationalized method for producing histograms", *The Numismatic Chronicle*, general series 140, series 7, 20 (1980), 178–89; 180–1.
45 Eliahu Ashtor, "Levantine Weights and Standard Parcels: A Contribution to the Metrology of the Later Middle Ages", *Bulletin of the School of Oriental and African Studies* 45 (1982), 471–87; 487.
46 E.g. D. M. Metcalf and W. A. Oudy (eds), *Metallurgy in Numismatics*, The Royal Numismatic Society Special Publication Series, Vol. 1, No. 13; Vol. 2, No. 19 (London, 1980; 1988); also Cecil Morrisson, Jean-Noel Barrandon and Claude Brenot, "Composition and Technology of Ancient and Medieval Coinages: A Reassessment of Analytical Results", *Museum Notes* 32 (New York, 1987), 181–209.
47 Paul Z. Bedoukian, *Coinages of Cilician Armenia*, Numismatic Notes and Monographs No. 147, The American Numismatic Society (New York, 1962).
48 Rudi Paul Lindner, "Hordes and Hoards in Late Saljuq Anatolia", *The Art of the Saljūqs in Iran and Anatolia*, ed. R. Hillenbrand (Costa Mesa, CA, 1994), 278–85.

2

YALAVACH

Entering the land of gold and silver; establishing foundations

Yeh-lü A-hai

The campaign into the central steppes

The Mongols began their great expansion by attacking the Tangut Empire in 1209 AD. The objective was a sophisticated state based on commerce and agriculture situated west of the Huang Ho River. However, since it was both too populous and too complicated to control at this stage of the Mongol Empire, the Tanguts became vassals; and the Mongols returned to the northern steppe. While the Tanguts supplied men for campaigns and prized items,[1] there is no indication that Chingiz Khan (603–24 H/1206–27 AD) levied tribute systematically, either in time or number; and, most importantly for this study, tribute did not include monetary payments. Although the Tanguts had a coinage system that focused on their northern trading route near Mongolia,[2] Chingiz Khan found no use for heavy pieces of metal. Taxes were still at a rudimentary level, probably consisting of sporadic donations in-kind demanded on special occasions. At this point, both money and taxation needed development.

Five years later, Chingiz Khan began the arduous campaign against the Chin Empire, taking Beijing in 612 H/1215 AD. However, he did not continue further south to the Song Empire because he was forced to re-evaluate the security of his rear lines as an old enemy, Kuchluk, consolidated the remnants of the Qara Khitan Empire. The khan eliminated this threat and absorbed the territory into his own in 615 H/1218 AD.[3] That success put the Mongols adjacent to the territory of the Khwarazmshah, ʿAla' al-Din Muhammad (596–617 H/1200–20 AD).

By then, Chingiz Khan controlled the numerous and lucrative commercial routes across Central Asia to China and sought a trade agreement with the Khwarazamshah. A treaty was arranged, but the Khwarazmshah's governor at Utrar on the border harboured great suspicion about the first group of merchants arriving in a large caravan. He assumed there were spies among them and massacred everyone.[4] He might have been correct although there is no evidence that the Mongols had any plans of aggression. On the contrary, there was still unfinished business in China; and, heretofore, Chingiz Khan had shown no interest in these central steppe lands. It seems plausible that his ensuing attack was a means of

redressing a serious breach in the international law of the time. Chingiz Khan made his first impact on the Khwarazmian Empire by going deep inside it and sacking Bukhara.

Samarqandi administration

Upon the capture of Bukhara very late in 616 H/February 1220 AD, Chingiz Khan immediately formed the nexus of a civilian administration for the province.[5] One of his first steps was to assign a Mongol governor to collect tribute with the assistance of local leaders. The arrangement did not differ greatly from Khwarazmian rule since that dynasty, being Turkish, was also foreign to the local population. For example, a Turk, Tort Aba, had been the *basqaq* or governor of Samarqand.[6] Since the upper echelon in Transoxiana had been pagan Turks direct from the steppes,[7] the Mongols easily stepped into their shoes and absorbed the civic administration. The transition was quick and began the long Mongol rule of the steppes. The last political vestige survived until 1783 AD while the last ethnic group remained around the Aral Sea until Stalin's purges after World War II.[8] The governor-general Chingiz Khan appointed was Yeh lü A-hai, a Khitan, whose native language was close to Mongolian.

Biography of Yeh-lü A-hai (ca. 546–620 H/ca. 1151–1223 AD)

The Khitan or Liao Dynasty of China had been defeated by the Jurchen or Chin Dynasty in the early twelfth century, but the Khitans remained the most important group in the Sino–Mongolian frontier. The Chin, originally from Manchuria, were distrustful of indigenous Chinese influence in their new empire; so they used many Khitans in their administration. As a result, the urban elite became acculturated to Chin methods. In contrast, the Khitans outside the cities had remained basically nomadic, whom the Chin were pressuring to farm much of the pasturelands and settle down. By the end of the twelfth century, the rural Khitans felt threatened. Many comfortably switched their loyalty to the Mongols and, often with urban support, began to create discord.

Yeh-lü A-hai[9] and his brother were members of one of these powerful tribes from Inner Mongolia. Their grandfather and father had been officials under the Chin of an important strategic town on the frontier. This background made them part of the well-educated and sedentary Khitan governing elite, well-versed in Chinese methods and aims of administration. Around the middle of the 1190s, A-hai was a Chin envoy to Toghrul Qan, Chingiz Khan's first ally. Soon thereafter, about 1197 AD, both brothers joined Chingiz Khan. With their local contracts, they helped destabilize the frontier and led forces in the Tangut and early Chin campaigns. At the capture of Beijing, Chingiz Khan may have planned to establish a Khitan buffer state in China since he gave three Khitans the top administrative posts, A-hai and his brother receiving two of them. This promotion gave A-hai responsibility for the civil administration of northern China. The pre-eminence of his position is testified by

his role in the transfer of the emperor's riches to the khan. The committee conducting the inventory of the treasures reported to him. Soon, the growth of conquests made it necessary to re-organize the total administration in 1217 AD,[10] particularly the military structure, in which he had been a leading participant. It was a number of years later in 1234 AD that the system was codified, and the families of the two brothers were on the list of the seventeen great appanage holders of northern China.[11] They dominated the area around Beijing for another twenty years. Soon after the 1217 AD re-alignment of northern China, the massacre of Utrar occurred; and A-hai was involved with the subsequent invasion of Transoxiana. Chingiz Khan assigned him to be the regional *darugchi* in Samarqand,[12] which confirmed A-hai as "a special personage since only a handful of regional *daragchi* are known to have been appointed during the first decades of Mongol rule and few afterward".[13] As the senior official, A-hai had all subordinate *daragchi* report to him. He quickly made his seat in Samarqand and died there in late 619 or early 620 H/early 1223 AD in all probability, governing his new territory for approximately three years. However, his son succeeded him and was the regional *daragchi* until the Tarabi Revolt in 636 H/1239 AD. As with other senior administrators then, the son was forced out of office in Transoxiana and given a post in northern China, probably in 1241 AD.[14] A-hai and his family possessed an enormous amount of influence in shaping the beginning of the Mongol Empire.

Tribute and the Khānī Dirham, *617–19 H*

Upon the Mongol arrival in Transoxiana, the new governor-general had a massive task and much power to accomplish it. He was responsible for security and economic support, in particular, "taxation, the maintenance of stations of the Mongol post-relay (*jam*), the dispatch of revenues and tribute items to court, the compiling of population registers, the raising of local corvee parties; the enlistment and supply of local security forces and garrisons, and the leading of these local forces in the field when necessary … A-hai seems to have served as a plenipotentiary regional co-ordinator, a viceroy even, for the Mongols". As Mongol power took hold, he also had the difficult task of integrating the heterogeneous components of his "province into a coherent entity; and this he did through an administration of multinational character, put together from alien and local elements, but on the whole Chinese in character".[15] Under his son, this eastern tendency also found concrete expression in the coinage.

Although there was much unrest in the countryside, the cities "possessed the beginning of a firm government in the well-ordered administration of Yen-lü A-hai".[16] That meant, curiously, protecting the inhabitants from harassment by Mongol soldiers and, more understandably, collecting monetary tribute from the local people. At the very start of the occupation in Bukhara, Chingiz Khan had:

> asked them who were their men of authority; and each man indicated his own people. To each of them he assigned a Mongol or a Turk as basqaq

> in order that the soldiers might not molest them, and, although not subjecting them to disgrace or humiliation, they began to exact money from these men; and when they delivered it up they did not torment them by excessive punishment or demanding what was beyond their power to pay.[17]

After taking Bukhara, Chingiz Khan drove much of its populace east before him as fodder for the defenders of Samarqand. Once his forces succeeded there, he also exacted tribute "offered" by local groups:

> As a thanksgiving because they had not shared the fate of the others nor attained the degree of martyrdom but had remained in the ranks of the living, he imposed [a ransom of] two hundred thousand dinars on those supplicants and deputed the collection of the sum to Siqat-al-Malik and ʿAmid Buzurg, who belonged to the chief officials of Samarqand. He [Chingiz Khan] then appointed several persons to be shaḥnas of the town and took some of the levies with him.[18]

To facilitate the collection of tribute and to know exactly the amount gathered, the nascent administration used coinage. The subject population presumably first paid in Khwarazmian money, but A-hai began to mint his own almost immediately. Since he established an administration derived from Chinese models, he probably did not appreciate dealing with a coinage of three metals. In fact, his reaction to Islamic money might have been the same as that of another of Chingiz Khan's chief officials, who, en route through Samarqand later, stated "these eyeless cash! How can I string them?"[19] Nevertheless, A-hai presumably relied heavily on Siqat al-Malik and ʿAmd Buzurg, leaving financial details in their hands. Certainly, A-hai did not organize a new coinage system but left the previous one in place. His main interest in money was simply to collect it.

Therefore, under his supervision, a formal administration emerged quickly; and taxation became standardized. The first type of Mongol money he authorized was the *Khānī* Dirham series, the name appearing on the coin itself. It was a group of large thin-flaned billon coins, a mixture of some silver with copper, minted from 617–19 H in the corridors of Ma wara al-Nahr to Dhihistan and from Samarqand through Badakhshan to Tukharistan. The general features of the *Khānī* Dirham were, first, the citation in Arabic script on the obverse of the Islamic profession of faith and on the reverse the name of the ʿAbbasid caliph. Second, the reverse margin gave the mint and date. The average weight of the normal coin was 5.20 grams or 28 carats of the 4.48-gram mithqal. Finally, in spite of its title, the *Khānī* Dirham was not pure silver but mostly copper; therefore, the exchange value is difficult to determine without an analysis of the alloy.

Samarqand produced the first Mongol coinage in 617 H.[20] It seems that actual production of the new die and perhaps the mint was entrusted to a Qara Khanid official. The calligraphy of this series closely resembles that of the coins of the

last Qara Khanid ruler of Uzgand which, in turn, was reminiscent of the kufic inscriptions on the dynasty's monuments. That coinage possessed a fat and squat style similar to the *Khānī* Dirham rather than to the style of Khwarazamian coinage. The initial type of Samarqand had a double linear circle on the obverse margin and a single one on the reverse as illustrated in Plate 2.1. The legend on the obverse field was the short *shahada* of *Āllāh/lā ilāh illā/Āllāh, Muḥmmad ra/sūl Āllāh/* "God/There is no deity except/God, Muhammad is the Mes/senger of God". The division of the lines is shown by slashes, and the inscription reads downwards. There was also a marginal religious inscription. The reverse field had *Khānī/al-Imām al-Āʿẓam/al-Nāṣr li-Dīn Āllāh/Āmīr al-Muʾminīn/*"Belonging to the Khan/ the Greatest Leader/the Victor for the Faith of God (the *laqab* or honorific of the ʿAbbasid caliph)/the Commander of the Faithful" (another *laqab*). The margin contained the standard minting formula, starting at 1 o'clock, of *Bi-smi Āllāh,ḍuriba hadhā al-dirham bi* (city) *fī sana* (full date)/"In the name of God, this silver coin was struck in (city) in the year (date).[21] Most extant specimens have worn and illegible edges, but the type was probably produced in both 617 and 618 H. In 619 H, the issue was better stamped and has full legible margins. Although the weight and alloy of this coinage is awkward, A-hai undoubtedly knew the value of this money as he began to keep tax registers.

Continuing conquests and government expansion

While at Samarqand, Chingiz Khan sent his middle sons, Chaghadai and Ogedai, back to the east to invest Utrar. From that point, his eldest son, Jochi, headed north. Following the Syr Darya downriver, Jochi remained in Jand until the

Obverse Reverse

Plate 2.1 *Khānī* Dirham type (Samarqand) (Date: 617 H; weight: 4.75 grams; metal: billon)
Source: By permission of S. Album. Double actual size.

following year, his weak forces compelling him to remain on the lower reaches in a defensive position during 617 H.[22] Finally, he marched on the region of Khwarazm and its capital, Gurganj; and then Chaghadai and Ogedai joined him after their success at Utrar. The capital fell in Rabi' I 618 H/April 1221 AD during the time Chingiz Khan was besieging Talaqan.

Apparently, the brothers did not establish an administration similar to that of their father at either Utrtar or Gurganj. The cities paid no tribute, and no Mongol coinage is known from the former Khwarazmian capital. Instead, Chingiz Khan's three sons, Jochi, Chaghada and Ogedai, initially divided the spoils and people amongst themselves. This behaviour gravely angered their father,[23] but it set a precedent which Hulagu and others were to follow later. After the capture of Gurganj, Jochi stayed in the area while Chaghadai and Ogedai moved south to join their father.[24] By assuring the security of the area, Jochi later laid claim to it.

'Ala' al-Din Muhammad had but recently acquired much of his territory, which he held with variously reliable troops. He was in a weak military and political situation and now showed signs of a lack of ability to meet the challenge.[25] He raised no defence for the empire but instead fled first south to Balkh on his way to India. Then changing plans, he switched directions to head across Khurasan to al-Jibal. Before Gurganj fell, two of Chingiz Khan's best generals raced after the sultan, who eventually found shelter on an island in the southwestern corner of the Caspian Sea. There, he died in winter at the end of 617 H/December 1220 or January 1221 AD.

On another front, once Utrar had fallen, some forces had rejoined Chingiz Khan besieging the well-fortified city of Samarqand, which he took in early 617 H as already noted. Then during the summer, Chingiz Khan rested his men in the mountains south of the city. Towards autumn, he moved further south against Tirmidh, on the north side of the Amu Darya River, and then spent the winter of 617 H/1220–1 AD in the higher elevations of the Vakhsh, present-day Tajikistan.

After establishing basic administrative and accounting procedures and then collecting the tribute in Samarqand, the tax officials apparently joined the main army near the end of 617 H. In the spring of 618 H/1221 AD, Chingiz Khan approached Balkh, which capitulated. Again, A-hai's officials initially established an administrative structure in the territory according to evidence from the coinage. However, on Chingiz Khan's way back from the south a year later, the place was razed.[26]

For its brief Mongol coinage, Balkh used a design that had been distinctive for a time under the Khwarazmshahs in the region of Badakhshan and the city of Qunduz to the east of Badakshan. Therefore, the technical experts who devised this currency probably came from that region as part of the ever-growing levy of manpower swelling the army. The earlier pre-Mongol designs from Qunduz and Balkh had consisted of different arrangements of squares and circles, suggesting that the cities had formed sub-districts within a province. The area had been ruled by the western Qara Khanids until 603 H only fifteen years earlier.[27] Each city had used a different combination of forms but applied the same design to both sides as

Obverse Reverse

Plate 2.2 *Khānī* Dirham type (Balkh) (Date: 618 H; weight: 5.95 grams; metal: billon)
Source: © Copyright The British Museum Or 2406. Actual size.

illustrated in Plate 2.2. They also had separate weights. In the Mongol period in 618 H, Balkh used the same forms but arranged them in opposite patterns on each side. The obverse showed a square-in-circle while the reverse had a circle within a square. Inside the designs, the obverse had the short *shahada* over three lines. The Samarqandi division of *rasūl* between two lines was still distinctive although the top *Āllāh* was removed. The reverse field shortened the Samarqandi legend, leaving out the second line, to read *Khānī/al-Nāṣir/li-Dīn Āllāh/Amīr al-Mu'minīn* with the minting formula outside the square.[28] Like the preceding money from the area, this tribute was also in billon and was at parity with Samarqand at 5.20 grams.

At the major city of Balkh, part of the administration remained to issue again in 619 H; but two other sections seem to have separated from it. One of these apparently returned to Samarqand for the tax due in 618 H. There, it struck new coinage adding the caliph below the *shahada*, re-emphasizing his religious role. On the other hand, the reverse remained the same. With the caliph now posted on both sides, there was no obvious obverse or reverse. Rather, the repetition produced a slight mirror effect that reappeared shortly.

A different tax division went east through Badakhshan to Bukhara in 618 H. In the Badakhshan area, it struck two transitional types. While close to Balkh, the diwan followed the city's model with an obverse that had two squares forming an octagon surrounded by a circle. Inside them, the inscription had the *shahada* in a different format that would soon become standard of *Lā ilāh illā/Āllāh, Muḥammad/rasūl Āllāh*. The reverse had *Khānī/al-Nāṣir li-Dīn Āllāh/Āmīr al-Mu'manīn*. Unfortunately, there is only one billon coin known,[29] which does not give the mint. However, the weight suggests that it came from Badakhshan since it is close to the 4.24-gram mithqal.

Another billon coinage was struck later,[30] which again had no mint. However, its weight and distinctive obverse marginal chevron design link it to an earlier Khwarazmian billon coin stating Badakhshan on the obverse and the caliph on the reverse.[31] The money might have been issued in the Vakhash Valley on the north-

western border of Badakhshan, suggesting that officials used its Khwarazmian coinage as a model. On the obverse, this coinage continued the Samarqandi form of the Muslim declaration of faith in the same line division that split *rasūl*. The reverse inscription differed, however, in three respects. It read *Khāqānī/al-Imām al-Āʿẓam al-Nāṣir li-Dīn Āllāh*. Therefore, the first change was to split *al-Āʿẓam and al-Nāṣir* over two lines. The second was to replace *Khānī* with *Khāqānī*, and the third was to eliminate the caliph's title.[32] However, in general the information and style continued to follow Samarqand by having the minting formula of the city and date in the reverse margin. Unfortunately, on the one specimen known, the full information is off the flan. However, the weight suggests at least that the mint was not Qunduz, one of the major towns in the area.[33]

Taking the original Balkhi model to Bukhara, the government finally issued its own money there in 618 H.[34] Then the administration developed a great variety of squares and lobed designs for the city, which it began to issue the next year in 619 H.[35] The basic Bukharan type did not split words over two lines and kept the caliph's original title. The obverse field had the normal *Lā ilāh illā/Āllāh Muḥammad/rasūl Āllāh*. The reverse field inscription, with the Badakhshani refinement of *Khāqānī*, not *Khānī*, was *Khāqānī/al-Imām al-Āʿẓam/al-Nāṣir li-Dīn Āllāh/Āmīr al-Muʾminīn*. Another distinctive feature of Bukhara was that the obverse and reverse margins repeated each other with the classical minting formula. Part of this diwan then went west to Astarabad. There, it modified the reverse by removing the last line to read *Khqānī/al-Imām al-Āʿẓam al-Nāṣir li-Dīn Āllāh*. The obverses were probably shared with Samarqand since they had the unusual arrangement of the caliph right after the *shahada*.[36] The other section of the diwan took the intricate Bukharan designs to Samarqand, which soon replaced the earlier type. However, in Samarqand, there was no date in the minting formula.[37] Nevertheless, given the progression of design styles and legends, this series was probably used for the tribute due from various groups in Samarqand in 619 H.

The development of the series is sketched in Table 2.1 but should be considered extremely conjectural. Because of the plethora of issues in Samarqand and Bukhara, minting apparently took place several times each year, either each local group using a particular die or A-hai's agents accepting tax in instalments. Even so, in 619 H, all sections of the financial department seem to have been in Samarqand, in which the Bukharan form dominated. A-hai had gathered much tribute, all of which he apparently deposited in his capital. At the end of the year, he died; but his son would probably have continued the system except that finances were already under review.

Financial theory and structure: accounting procedures and weight standards

The Mongols explicitly labelled this coinage as their money. The word at the top of the reverse, *khānī* or *khāqānī*, was the name they gave to the series, which the marginal inscription defined as a *dirham*. Therefore, the first Mongol series has

Table 2.1 Khānī Dirham, 617–19 H

		Inscription				
Date	*Mint*	*Obverse*	*Reverse*	*Mint/Date*	*Metal*	*Weight*
617	Samarqand	*Shahada*	*Khānī* Caliph	Reverse	Billon	5.20 g. of 4.48 mithqal
618	Balkh	*Shahada*	*Khānī* Caliph	Reverse	Billon	5.20 g.
	Badakhshan	*Shahada*	*Khāqānī* Caliph	Reverse	Billon	4.24 g.
	Samarqand	*Shahada* Caliph	*Khānī* Caliph	Reverse	Billon	–
	Bukhara	*Shahada*	*Khāqānī* Caliph	Reverse	Billon	–
619	Balkh	*Shahada*	*Khānī* Caliph	Reverse	Billon	5.20 g.
	Astarabad	*Shahada* Caliph	*Khāqānī* Caliph	Reverse	Billon	5.20 g.
	Bukhara	*Shahada*	*Khāqānī* Caliph	Reverse	Billon	–
	Samarqand	*Shahada*	*Khāqānī* Caliph	Reverse	Billon	–

been identified as the *Khānī* Dirham. Such a label followed Islamic practice, which often gave coinage an honorific name, usually after the ruler who authorised the minting. Although it was unusual for that name to actually appear on the coin, the term *khānī*, implying "property of the khan",[38] had an immediate antecedent: ʿAlaʾ al-Din Muhammad had issued a mintless and dateless epigraphic billon type with the name of the coin, *manṣūrī*, also above the caliph's name. That Khwarazmian die was still around even as late as 651 H as it made the central field of the reverse of a coin from Bukhara[39] and the obverse of one from Samarqand.[40] Since the *manṣūrī* type influenced Mongol coinage, it was probably current in Ma wara al-Nahr just prior to the Mongol conquest. Although A-hai had difficulty understanding western coinage, he let the *Khānī* Dirham exhibit the special feature of a type name. However, as there was no marginal legend on ʿAlaʾ al-Din's billon, no minting formula called the coin a *dirham*. For that designation, the Mongol series took inspiration from the marginal formula of the shah's former gold coinage, which did have the term *dīnār*.[41] By combining the two elements, this Mongol addition of the word *dirham* was an improvement: the coinage was identified simply as a coin rather than as an honour to or bestowed by the ruler. Although this series demonstrated A-hai's eclecticism and disregard for tradition by combining billon and gold inscriptions, it also immediately attested to his readiness and that of the Mongol inner circle to accept indigenous practices.

Natural law: metal and weight

Although *dirham* originally meant a silver coin, the term had become synonymous with "coin" or "currency" and was applied to both copper and silver in this period. For example, the Jazira, in which no silver was issued at this time, had copper coins stating *dirham* in the margin. Similarly, the term *dīnār*, originally given to gold, was also interpreted as "coin" as exemplified by the first Chingizid silver issue from Bulghar. Since these outdated terms, defining currency by metal, were

being abandoned throughout the Islamic lands, especially those ruled by Turks, the Mongols soon went even further and failed to use the words at all except in special cases. In the process, the Mongols helped transfer the identity of a coinage from metal to weight.

The important transition was a logical emergence from the complicated Islamic practice of relating the value of different metals to each other by weight. For example, ten silver coins of 2.92 grams each were equivalent to seven gold ones of 4.125 grams each. However, under the Mongols, this system was abandoned from the first according to the evidence of this *Khānī* Dirham coinage. Rather, gold, silver and copper were minted in combinations of alloy at the same weight so that market forces determined their equivalency.

Divine law

Theoretically in Islamic money, the title of the caliph appeared on the reverse, representing positive law as a conduit for divine law. If the caliph was mentioned on western coinage, he had invested the ruler with titles and rights. Indeed, the ruler was helping the faith and the land of the Muslims. Therefore, it is exceedingly curious that the caliph's *laqab* and title appeared on Mongol coinage. Chingiz Khan neither wanted nor received approval from the current caliph, and his purpose was certainly not to further the cause of Islam. Moreover, it should be assumed that A-hai and Chingiz Khan had the meaning of coinage explained to them. The khan would not have shared space on the coin and thereby temporal power with any person. Indeed, he did not plan to do so since, even though al-Nasir was the leader of a revived and temporal caliphate, his power in the east was religious only. The Mongols, in this initial period, probably understood his position to contain spiritual attributes and to be the arbitrator of justice for the particular code under which the conquered people lived.

However, the theory of the caliphate was a fluid one, especially during a period in which the office was dominated from the outside by a military hierarchy. In the latter situation, therefore, the caliph became a symbol of divine authority, not of positive law. To indicate this point, his religious role was stressed if his name appeared on the obverse. In fact, this Mongol practice on the Samarqandi issues simply copied Khwarazmian predecessors. The format had become frozen as reflected by the coinage of ʿAla' al-Din Muhammad, who in 614 H had retained the caliph's name and title on his coinage[42] in spite of the fact that he had declared al-Nasir unfit to rule, refused to mention his name in the *khuṭba*, proclaimed a counter Shiʿa caliph and marched on Baghdad.[43] Therefore, the caliph's name could appear on either side of a coin without challenging Chingiz Khan.

According to the inscription, A-hai had quickly adopted indigenous practices and had installed a coherent and robust civilian administration. An indication that he followed regional practice is that all the money seems to have been on the same unit weight standard of 5.20 grams.[44] Second, the metal and size were all the same. Both the weight standard and flan of the coins were the culmination of a

long practice in the region. Large-flan coins had begun in the 320s H with the multiple dirhams of the Samanid ruler, Nasr b. Ahmad (301–31 H/914–43 AD). The dynasty's main mints had been in Badakhshan with others in Tukharistan and Bamiyan, sites associated with the active silver mines along the northern slopes of the Hindu Kush.[45] The silver coinage also began to be debased in this period,[46] which ultimately allowed these *Khānī* Dirhams to be billon rather than silver. Thus, the area followed a system developed from the Samanid period, giving A-hai a basis for a standard to register his monetary taxation.

On the other hand, the Mongols may have instituted a significant change in the method of producing dies. If so, it was one of the most notable pragmatic aspects of their rule. Since the centres of several of these types were all the same but the margins varied with the mint site and date, it is evident from the very first period of Mongol coinage that the fields and margins were inscribed separately. It is probable that the centre was made from a master hub, and the margins were etched on the spot at the time and place of minting. This practice continued through much of the later coinage. Therefore, from their first introduction to western money, the Mongols adopted versatile and pragmatic practices that met specific goals.

In conclusion, the first Chingizid coinage series was called the *Khānī* Dirham, which consisted of large, thin flans of copper mixed with some silver. It was issued from 617–19 H, and the single unit standard was 5.20 grams or 28 carats of the 4.48-gram mithqal. Its purpose was to organize into one system the various tribute monies owed by the subjugated populations and was collected annually or in instalments in the chief city of each region. It began in Samarqand, whose obverse and reverse inscriptions were the bases for the subsequent coinages of Badakhshan, Balkh, Bukhara and Astarabad. The *Khānī* Dirham series established four features for future Mongol money, the short profession of faith on the obverse, the use of a minting formula, no concern about types of metal and a two-stage process of die production. The next coinage, that of Zabulistan, provided other long-standing features. Together, they formed the foundation of the permanent monetary policy that was established twenty years later. By then in 637 H, Mongol authority was firm enough to launch a sustained financial programme.

Mahmud Yalavach, 618–19 H

Failure in Khurasan

As A-hai was establishing control of the Khwarazmshah's central province, Chingiz Khan and the main army had moved to the south of the Oxus River or Amu Darya late in 617 H. As the campaign began in Khurasan, Balkh was the strategic launching platform since, according to Juvayni, "Khurasan was divided into four cities: Balkh, Merv, Herat and Nishapur".[47] Once the Mongols had secured Balkh, the civilian administration had needed re-arranging. Initially, it had been one group directed by Samarqandi practices, but the rapid military successes had required many more local governors with their *shaḥnas*. Therefore, the original group had divided and parts returned north, as noted. Nevertheless, the small portion that

remained could not manage the growing task; so a new group, probably led by Mahmud Yalavach as discussed below, dealt with the latest conquests in Khurasan and Zabulistan.

Marw

To the west of Balkh lay the area of Marw and Sarakhis (southwest of Marw), which had received the offer/ultimatum to submit in late 617 H. Sarakhis did so, but Marw had too many power blocs to arrive at a binding decision. Both of these leading cities were in turmoil about their allegiance, various leaders leading resistance or counselling submission. Men loyal to each faction went between the two places to give support to armed struggle. The great deal of local intrigue and skirmishes abated for a while as a Mongol force led by Tolui enforced the submission of Marw on the first day of Muharram in 618 H. The Mongols placed in charge Ziya al-Din ʿAli, a local notable. His Mongol *shaḥna* rounded up 400 craftsmen, whom he promptly took to Bukhara. For those who escaped the pillage, slaughter and deportation, the new administration levied a tax that was met by a thin-flan billon issue. The weight seems to have been half that of the *Khānī* Dirham or 14 carats of the 4.48-gram mithqal. Both sides of the cartouche were elegant; but this issue was less elaborate than those of Balkh, being a double linear square inside a single linear circle. The obverse held the simple *shahada* of *Lā ilāh illā/Āllāh Muḥammad/rasūl Āllāh* with the date of 618 H in the outside portions. The reverse held a new inscription that identified the ruler as *al-Khāqān/al-Aʿẓam/Chingiz Khān/al-ʿĀdil* with the mint in the outside section.[48]

The terms on the reverse came wholesale from Qara Khanid titulature. An example of the same wording is found at the beginning of an inscription on a royal mausoleum dated 547 H/1152 AD at Uzgand.[49] The formula started with *al-khaqān al-ʿādil al-aʿẓam*, alone, in plaited kufic that was followed by the ruler's Islamic *laqab*. Then came his dynastic title, starting with *Alp Qilitj* and ending with a Turkish totemic element, in this case of *Tughril*/"Falcon". Finally, he was identified personally as the *Qāqān al-Husayn b. al-Husayn b. ʿAlī*.[50] The building was constructed only eleven years after the collapse of the larger Qara Khanid state, allowing the ruler of this local branch to absorb the vacated supreme title. That title was used by subsequent rulers on their coinage and always came first.[51] Mongol money absorbed the words, providing the first sign of Mongol titulature in the west. By harking back to the founder of this regional house, the director used a protocol that was neither Khwarazmian nor Qara Khitan, both of whom had been former enemies. Rather, a friendly Turkish dynasty provided a guide to show respect for a new ruler.

The engraver for the obverse of the Marw coinage employed an angular style that gave the *lām-ālif* ligature a flat triangular bottom. However, the craftsman who inscribed the reverse had a more fluid hand and soon produced a similar die in both words and style at Ghazna. The styles indicate that the first engraver was left behind while the second one remained part of the civilian team. The government

collected its revenue and then proceeded to join Chingiz Khan in Ghazna. Once the diwan left with its military escort, a successful revolt broke out in Marw on the last day of Ramadan, 618 H, nine months after its capitulation. The leader of the rebellion "demanded his money from him. … When he realized that Ziya ad-Din had no money and there was nothing to be got from him, he ordered the death of Ziya al-Din ʿAli".[52] The money referred to was presumably this issue of Mongol coinage. In Marw, matters remained beyond Mongol control until the next year.

Naysabur

As Tolui was engaged with Marw, contingents went south to the area of Naysabur. On 11 Rabic I 617 H, the city had its first contact with the Mongols. Peaceful terms were established; and a month later, the Mongol general gave the leader a *gerege* and a *shaḥna*. The people were constantly providing the various parties that came through with food and animals, but they might have also struck coinage at this time. Money from Naysabur that can be specifically identified as Mongol has not emerged. However, a basic type without any other identification does exist. If the money is from this era, the most probable period, however, is later, after the revolt. The neighbouring city of Tus and Naysabur's suburb of Shadyak resisted occupation and were retaken by Mongol forces before Tolui arrived from Marw. Once Tolui invested Naysabur, its leader met Tolui to offer full submission and agreed to pay tribute. At this critical moment, the city may have produced the gold series that cites the caliph but no overlord or even *khāqān*.[53] Unfortunately, this payment did not satisfy Tolui and did not prevent the devastation of the city. He ordered the attack on 12 Safar 618 H or 7 April 1221 AD.[54]

Harat

Soon, Tolui rode further south and was aided by a local ally from Harat, who had probably made his agreement directly with Chingiz Khan. However, the malik soon became disaffected; and the alliance fell apart. In the summer of 618 H/1221 AD, Tolui arrived before the capital, which quickly capitulated after an eight-day siege. Tolui spared the place to join his father. As a result, the campaign in Khurasan closed. The financial arrangements made in Balkh were not adequate since, as Tolui had advanced from Marw, no standard financial policy followed him. Instead, the civilian government was probably extremely stretched and seems to have considered that its priority was to report directly to Chingiz Khan.

The khan was personally attending the on-going siege at Talaqan, west of Balkh. His forces when combined with those of Tolui finally succeeded in the summer of 618 H. After that success, the Mongols met the most persistent resistance to their authority in Greater Iran, Jalal al-Din Menguburni, the son of the last Khwarazmshah. He had dutifully travelled with his father and had been at his deathbed. Evading the Mongols, he had been able to return to Gurganj with the heir-apparent in tow a short time before Jochi began its long siege. However, a

palace plot against Jalal al-Din's life compelled him to flee to Zabulistan, the territory given to him by his father. He first broke through the Mongol lines around Khurasan to reach Naysabur, leaving the city only hours before a Mongol pursuit force arrived. He then headed to Ghazna on 14 Dhu al-Hijja 617 H/10 February 1221 AD, in which he spent the rest of the winter. During his sojourn, he seems to have struck a defiant gold issue.[55] In the spring, he went north to Parvan, at which he inflicted a major defeat on the invaders. The Mongol forces were led by Shigi Qutuqu, one of Chingiz Khan's great administrators but apparently not an equally capable general.[56] However, the victory was transient because discord within the Khwarazmian forces immobilised them. As a result, Jalal al-Din made plans to withdraw with his loyal troops behind the Indus River.

At the same time, Chingiz Khan had completed the siege of Talaqan; so his groups in the area were both united and undeployed. Therefore, the insult of the defeat at Parvan caused the khan to concentrate on eradicating Jalal al-Din. His previous experience with Kuchluk served as a reminder of the danger such a man posed. The Mongol army went from Talaqan by way of Bamiyan; then the khan viewed Parvan and soon entered the abandoned city of Ghazna.

Success in Zabulistan

At Ghazna, before racing after Jalal al-Din, Chingiz Khan appointed a governor, thereby making it the Mongol centre of administration in Zabulistan. The agent was Mahmud Yalavach,[57] the subsequent civilian governor of Samarqand.[58] Since the Marw protocol now appeared in Ghazna, it is probable that Yalavach had started the new department in Marw and brought it to Ghazna.

Biography of Mahmud Yalavach (d. 652 H/1254 AD)[59]

Mahmud Yalavach and his descendants served the Mongols for four generations or more. Little is known of his early life, but the broad view is that he was a Turkish speaker from Khwarazm[60] and a merchant by profession.[61] The earliest possible reference to him comes from Juvayni, who identifies Mahmud Bay as the chief wazir to the last Qara Khittan gur-khan, Chin-lu-ku (reigned 673–708 H/1178–1211 AD, died 610 H/1213 AD). He considered that both Mahmuds were the same person.[62] Since great chunks of Qara Khitan practices immediately appeared in Zabulistan and later in Transoxiana, only someone with a close knowledge of finances, such as a wazir, would have been able to inaugurate quickly a sound system for the Mongols.

The structure of the Qara Khitan Empire had left local dynasts in charge of their individual regions. Often only a *shaḥna/basqaq*[63] had lived in the cities to represent the gur-khan. Since there was no political unification, the Qara Khitan regime had been mainly a fiscal one. Consequently, tribute-collectors had visited the provinces periodically to exact one dinar per year from each household in the urban areas and a set amount, usually paid in-kind, from the rural population.

Local governors with a stable civic organization, who were thoroughly trustworthy, avoided the khan's agents by doing their work for them. For example, at the beginning of the seventh/thirteenth century, the leading notable of Bukhara "took the tribute of the city in person to the gur-khan's ordu, just as later under the Golden Horde the prince of Muscovy took his tribute to the capital of Saray".[64]

Although Yalavach's subsequent policies strongly suggest that he was the wazir of this regime, other signs point to a different possible origin. He may have been a Qara Khanid. One indication is that he was Muslim, the faith staunchly held by the Qara Khanids. To offset this point, however, the Qara Khitai had encouraged Muslims in their government and were thoroughly multi-ethnic and multi-religious. However, to add another point to a Qara Khanid origin, Yalavach spoke Turkish as his original tongue; and the Qara Khanids were Karluk Turks. The Qara Khitan language, on the other hand, was a cousin of Mongolian. Further, in contrast to the Qara Khitai, who had to be strongly urged to join the growing Mongol state, the Qara Khanids had eagerly allied themselves early in the expansion.

A century before, the Qara Khanid Dynasty had occupied the territory from Balkh, Samarqand and Bukhara to the Ferghana Valley. At the Battle of the Qatwan Steppe in 536 H/1141 AD, the Qara Khanids lost to the Qara Khitai; however, a separate line continued more or less independently in Ferghana at Uzgand. In 608 H/1211–12 AD, Arslan Khan rejected even nominal Qara Khitan control and offered allegiance to Chingiz Khan. In reward, Chingiz Khan reconfirmed the dynasty, which continued to govern Ferghana throughout Mongol rule.[65] The group was nomadic during the summer months, using its capitals only in winter. Nevertheless, the rulers were great builders; and many monuments are still extant.

This early alliance and reliability of the Qara Khanids would have pre-disposed A-hai to accept trained members of the regime in his administration. If Yalavach were one of these people, perhaps he put forward the former Uzgandi calligraphers. Further, the coinage he produced in Khurasan and Zabulistan directly derived its statements of legitimacy from Qara Khanid protocol. Moreover, the Qara Khanids viewed Turkish as equal to Arabic for official purposes even after they had converted to Islam. This unusual stance had affected their coinage, which contained inscriptions in both Uighur and Arabic script. A similar policy was to emerge a half century later under the Mongols.

Therefore, it is possible that Yalavach was a Qara Khitan but more probable a Qara Khanid who sought to advance his career by joining the court of his nominal overlords. Certainly, firm records attest that he was in Mongol service by the spring of 615 H/1218 AD when Chingiz Khan sent him with two other Muslim merchants to the Khwarazmshah. The embassy's mission, to arrange a trade treaty, was so successful that it earned him the name of Yalavach, Turkish for ambassador. The result of his endeavour was the large Mongol caravan that entered the shah's territory at Utrar.

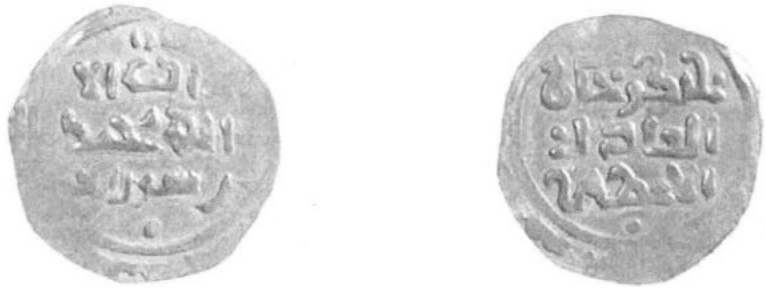
The sources then fall silent for over a decade, according to Barthold and Allsen, except for the Yalavach at Ghazna from Juvayni. Finally, in 626 H/1229 AD, Ogedai put him in charge of the sedentary populations of east and west Turkistan.[66] During

the ensuing period, he restored the irrigation systems along the Syr and Amu Darya Rivèrs.[67] Less agreeable developments surrounded Ogedai's elder brother, Chaghadai. The brother had assigned some imperial land under Yalavach's control to a different official. Ogedai at first supported Yalavach's objections but later conceded to his elder brother, just one sign of the growing tension between central authority and appanage holdings. The Tarabi Revolt later was the culmination of this division. To lessen the confrontation, Ogedai transferred Mahmud from Turkistan but gave his son the same powers in the province. A movement of personalities saved the administrative arrangement and kept the cities under central authority.

Later, Mahmud gave distinguished service under Mongka Khan in northern China, in which his chief function was to assess and collect taxes.[68] First, he conducted a new census in 650 H/1252 AD and then introduced a new taxation system based on the one he had first established in Central Asia.[69] It was not only China but also the whole empire that functioned under this policy. However, there were some adjustments to local traditions and areas. In China, for instance, the *qubchur*, known as the *k'o-ch'ai*, was not imposed on individual adult males, as in the Islamic lands, but on individual households. Further in China, this tax category was not collected entirely in coin since up to one-half could be paid in silk. Similarly, other alterations occurred in the west. Despite such amendments, Mahmud's basic tax categories were retained; and his system not only laid the foundations for later Yuan practice but also served as a model for the Jochid and Chagadaid Khanates.[70] His policies affecting the early rule of Greater Iran will be explored fully in the following pages. After setting his indelible stamp on the empire, he died in Khan Baliq (Beijing) in the spring of 652 H/1254 AD.[71]

Regional administration

At first, Yalavach probably reported to A-hai and collected the tribute from Ghazna according to local custom. Once again, the money represented payment from a grateful citizenry. This time, it was in gold and followed Islamic tradition by citing the ruler. The obverse changed from the Marw prototype in both the calligraphic style and the legend. First, the letters were tall and thin; and, second, the inscription took its cue from previous Khwarazmian coinage and proclaimed the caliph. The issue copied the Samarqandi format with the profession of faith on the obverse as *Lā ilāh illā/Āllāh, Muḥammad/rasūl Āllāh* with *al-Nāṣir li-Dīn Āllāh/Āmīr al-Mu'minīn* below. The reverse followed the Marw reverse in style and wording except for the change of position of *al-ʿādil*. It read *al-Khāqān al-ʿĀdil/al-Āʿẓam/ Chingiz Khān*/"Chingiz Khan/The Just/The Supreme". The standard minting formula giving the mint and date was repeated on both sides. The average weight was a little less than 4.48-grams, thereby almost meeting the expectations for gold to be struck at the mithqal and fitting into the system of Samarqand. Therefore, the legends of this coinage suggest that the Marw division had been bolstered by a contingent from Samarqand.



Obverse Reverse

Plate 2.3 Chingiz Khān type (Ghazna) (No date; weight: 4.37 grams; metal: gold)
Source: By permission of S. Album. Double actual size.

Pursuit

With Mahmud Yalavach appointed and tribute collected, Chingiz Khan was prepared to govern the region of Zabulistan. Nevertheless, finding that the victor of Parvan had a two-week start on him,[72] he advanced without rest. He caught Jalal al-Din at his weakest moment, preparing to cross the Indus.[73] With the Mongols in front and the river behind him, Jalal al-Din and his reduced forces gave battle at Dinkot, near the modern Kalabagh.[74] A generation later, the historian, Juvayni, provided details:

> Since Chingiz-Khan had ordered them to take him prisoner the army were sparing with their lances and arrows wishing to execute Chingiz-Khan's command. But Jalal ad-Din was too quick for them and withdrew. He was brought a fresh horse, and mounting it he attacked them again and returned from the charge at the gallop. (Poetic couplet:) Like the lightning he struck upon the water and like the wind he departed.
>
> When the Mongols saw him cast himself in the river they were about to plunge in after him. But Chingiz-Khan prevented them. From excess of astonishment he put his hand to his mouth and kept saying to his sons, "Such a son must a father have." ...
>
> To be brief, all of Jalal-ad-Din's army that were not drowned in the river were slain by the sword. His wives and children were brought before Chingiz-Khan, and as for those that were male, down to very sucklings ... they were thrown to the carrion crows.[75]

Chingiz Khan's respect for his rival was appropriate. The battles at Parvan and the Indus were the first points of contact between two resilient political movements that outlived both individual protagonists.

Juvayni continued his report which, in other cases, did not itemize the spoils gathered after each city was taken. At most, he noted the type of captive, usually craftsmen. In contrast for this battle, he made an exception by recording an aspect of the booty, money, which suggests it was a special feature of the victory. The captured coinage may have been a significant portion of ʿAla' al-Din's treasury, which Jalal al-Din had absconded with as he had left Gurganj. Juvayni said:

> Since the riches and wealth which the Sultan had with him consisted chiefly of gold and silver coin he had given orders that day for all of it to be cast in the river. The Mongols sent in divers to bring up what they could out of the water.
>
> This event, which was one of the wonders of Destiny, fell out in Rajab of the year 618 (August–September, 1221).[76]

The Mongol army now divided. One section was led by Ogedai, the other by Chingiz Khan:

> Chingiz-Khan proceeded along the banks of the [Indus] river but sent Ogedai back to Ghazna, the people of which made voluntary submission.
>
> Ogedai ordered them all to be led out into the open country, where such as were artisans were set on one side while the rest of their number were put to death and the town too was destroyed. He left Qutuqu Noyen in charge of the captives and craftsmen, who were to pass the winter in that place, whilst he himself returned by way of the Garmsir to Harat.[77]

The fact that Chingiz Khan had initially placed an agent over Ghazna, that Ogedai had to return, that subsequently it offered voluntary submission, then suffered a massacre of the inhabitants and finally had a new agent are all exceedingly contradictory occurrences. Rather, it seems that Juvayni compressed significant events into one short sentence. The clearest view is that all of Zabulistan and especially its capital, Ghazna, were in turmoil. The rapid political changes meant that the first Mongol governor, Yalavach, probably had to leave the city soon after the departure of Chingiz Khan and his forces. At any rate, without the army his control was unstable. As a result, the city probably had no Mongol presence for almost two months, considering the military timetable of the march to and from the Indus River and the need for assessment after the Battle of the Indus. With the return of Ogedai, the inhabitants may well have submitted once again. However, in his frame of reference, they had rebelled. In Mongol law, the punishment for rebellion was massacre. Therefore, when the governor was reinstalled, his functions were no longer those originally intended for him. He had no subdued populace to manage or from whom to collect tribute. Instead, there were only a few captives. This time a Mongol general, Shigi Qutuqu, stayed with a large force. In this different environment, Yalavach could only have been dealing with the non-combatant army.

A new government: ʿAdl *coinage, mid-618–19 H*

The situation at Ghazna was new to the Mongols; but it was during this period and in the winter camp near the city that Yalavach cemented his significant position for the future. Although his original function had ceased, his new task was to help Shigi Qutuqu govern the army. Shigi Qutuqu was much more of an administrator than a general. He had shown a clear understanding of the state Chingiz Khan was trying to build much earlier when the Altan Qan or the Chin Emperor had lost his throne in 1215 AD. Shigi Qutuqu was one of a committee of three registering the emperor's private treasury. Only he had not taken any of the booty for himself, considering that it all belonged to the supreme leader. His concept of a central treasury gained him the greatest respect and trust of Chingiz Khan, who then called him his eyes and ears.[78] As he had been part of Chingiz Khan's entourage in China, so he also accompanied the ruler to the west. As a result, Shigi Qutuqu was the senior Mongol in Zabulistan. Responsible for establishing the administration, he thereby provided Yalavach with strong support for creating the framework of a new taxation policy.

Thus, a sizeable portion of the army, which had accumulated a great deal of booty, was residing at Ghazna. Part of its wealth was perhaps the portion of Jalal al-Din's treasury from his winter residence in the city that had not been tossed into the river. Some large source of bullion was certainly required as Yalavach ordered the captive craftsmen to strike money.[79] Its purpose was not tribute since there was hardly a native soul left alive but, rather, the legal return of some of the conquest booty to the state war chest. In short, this administration taxed Mongols.

Taxing the *ulus* was a Mongol practice; however, the way it was done at this point, through money rather than in-kind, was the inspiration of the new administrator, Mahmud Yalavach. Moreover, there is such a remarkable abundance of this coinage, unusual in economic history, that it uniquely reveals an important aspect of the internal structure of a massive warring state on the move. Since two of the proposed three sites of the coinage were levelled, the population was not asked to pay tribute. Most of them had not survived, and those who had were carried off into slavery. Equally, with major cities gone, there were no markets for trading; thus, coins were not needed to buy and sell or to collect any tax on trade. In fact, there was no reason Yalavach needed to mint in Zabulistan at all except one, to tax his own army. Two factors would have allowed this policy: one, booty was considered income for the soldiers, which the khan felt he could tax; and, second, a large part of the army was not Mongol but affiliated tribes or enforced manpower.[80] The exact mature of the taxation system is difficult to determine, but it seems probable that Yalavach levied the *qubchur* or poll tax[81] on that part of the Mongol *ulus* not fighting with Chingiz Khan in Kafiristan. Instead, Yalavach taxed the divisions under Ogedai and Chaghadai residing for a while at three major sites. The booty would have been distributed according to strict regulations; and since the number of men in each division was known, Yalavach could establish taxation rates and a collection method enforceable through military discipline.

Yalavach seems to have had a thorough understanding of the way money worked. In this region, the system had some different rules from his homeland; but he grasped them quickly and formed a cohesive system. First, the structure of mint production consisted of the capital and subsidiary mints, which was reflected in two-tier weights for the unit coin. This hierarchy he followed; but since the different weight standards did not serve him well, he adjusted them to one standard to make a unified accounting system. Second, he was aware of the importance of fabric. Zabulistan had a proclivity for an entirely different type of coinage, clearly distinct from the *Khānī* Dirham. Specifically, the diameter of the flan was about half that of the *Khānī* Dirham and around three times as thick. The gold, however, which was extremely rare, followed the Islamic model and had a thin fabric. Finally, the inscriptions of each site were traditionally unique to each mint. He united these various legends and designs into a general format which was simple and technically non-Islamic because there was no profession of faith. With these main parameters of his policy defined, he established the first monetary tax on Mongols.

Specifically, the new coinage consisted of various portions of silver and copper and, as illustrated in in Plate 2.4, cited the caliph on the obverse, who replaced the *shahada*. All the reverse inscriptions had the words of *al-ʿadl*, *khaqān* and *al-āʿẓam,* supplying the term of *ʿAdl* coinage to the Zabulistani group.

Nevertheless, there are no dates and generally no mints on Mongol coins of this type from this area. Although production times and sites can only be conjectured, fortunately, different monetary traditions, some similarities in design and weight and especially the movements of sections of the army under Ogedai and Chaghadai suggest that mints existed first near Ghazna, then Kurriman and finally Harat. Chingiz Khan's return to the Samarqand region concluded this attempt at governing Zabulistan and this series of his coinage. The military campaigns create the context of the nascent administration while the coinage clarifies the process Yalavach used.

As for the actions of the military, the Battle of the Indus marked the geographical extent of Chingiz Khan's personal campaigns in Islamic territory. Although the sources report his activity with contradictions and gaps both before and after the battle, at this turning point, they suggest that he followed the river for a while and

Obverse

Reverse

Plate 2.4 *ʿAdl* type (Kurram) (No date; weight: 3.07 grams; metal: billon)

Source: © Copyright The British Museum 1883.10.4.2. Actual size.

felt it necessary to secure his rear by sending Ogedai back to Ghazna, as already noted. Then Chingiz Khan turned north to campaign for three months in Kafiristan, northeast and east of Kabul, subduing fortresses controlled by defectors from Jalal al-Din's forces. In the meanwhile, the occupation of Zabulistan acquired a modicum of bureaucracy.

Sites

Once Yalavach was established at Ghazna, he started a rudimentary form of government. Nevertheless, during the Mongol occupation of the region, he was hard pressed to keep up with military events. As he reported to each major area under Mongol control, he brought with him the men and equipment to install the basic coinage system. He used the same type, but developments in the design indicate the progression of sites.

GHAZNA

Accepting indigenous practices and using local workers, equipment and bullion sources, Yalavach issued billon coinage first from Ghazna. The money was at a different mithqal from the previous gold, indicating the change in taxation policy. The inscription followed the lead of the previous gold coinage; but since the marginal legend was removed, there was no minting formula stating the date and place. Perhaps it was difficult to cite the current mint in a camp on the plain outside the razed city. Further, most of the region's coinage during this period was without a mint, not because that was the pattern of Zabulistani coinage, the situation varied, but because these Mongol mints did not serve towns. The formula was replaced on both sides with five circles, a dotted one between two sets of linear ones. The field proclaimed only the caliph, *al-Nāṣir/li-Dīn Āllāh/Āmūr al-Muʾminīn*, in three lines. The reverse shortened the inscription of the earlier tribute money to state *al-ʿĀdil/al-Āʿẓam/Chingiz Khān*.[82] This was the third of only four coinages that held his name, two of which were from this site. The weight of this silver coinage was 3.09 grams or three-quarters of the 4.125-gram mithqal.

KURRAM

Meanwhile, the main Mongol army, full of booty and an excess of captives, led by Chingiz Khan and Chaghadai[83] went to the Kurram Valley with its towns of Kurriman and Shankuran. It was here, apparently, that the khan learned that Jalal-al-Din had recrossed the Indus to bury his dead.[84] The khan sent Chaghadai to seek Jalal al-Din in the upper part of the valley, but Chaghadai did not find him and rejoined his father.[85]

The near contemporary source, Juvayni, gave a dramatic gloss to the progress of the army up to this point without providing information about military objectives. Nevertheless, the aims are not difficult to appreciate. Part of the army stayed in

the area, glutted with booty, because the valley was rich and strategically important, controlling several routes into India. The northern route came from Bamiyan via the Bamiyan Valley while the western one came from Ghazna, both meeting in the Kurram Valley. Two empires before, a general named Yildiz had become the governor of the province, which was named after the main towns in the valley. Yildiz, the first to mint coins there,[86] subsequently became the sultan of Ghazna under the Ghurids. That dynasty had been defeated in 611 H by the Khwarazmshah[87] so that, when Chingiz Khan defeated Jalal al-Din, the Khwarazmians had held the territory for barely six years. Their brief period of suzerainty and the disjointed nature of their empire meant that Yildiz's monetary practices had probably continued without much alteration. Certainly, as Yalavach minted his first Mongol coinage there, he also followed the Ghurid pattern. That system consisted of the head mint issuing coins at the mithqal weight and provincial ones striking at a whole fraction of it. This was based on the body politic theory of the state. Therefore under Yalavach, Ghazna had struck gold at the mithqal while the billon unit from the fields of Ghazna and now Kurram weighed 3.09 grams or three-quarters of the mithqal.

Yalavach probably arrived soon after the army to organize the valley, particularly the part of the *ulus* that remained encamped there. The force held a substantial portion of Jalal al-Din's treasure from the Battle of the Indus, which required the governor's immediate attention. Yalavach's movement from Ghazna to Kurram is indicated by a unique transitional billon piece. The marginal design on the reverse remained the same as Ghazna's, but it was simplified on the obverse to one linear circle. The obverse also rearranged the Ghazna inscription to put *Āllāh* at the top and *al-Nāṣir li-Dīn* below followed by his title of *Āmīr al-Mu'minīn* on the third line. The reverse modified the word *al-Aẓam* to *muʿaẓẓam* and then removed the definite article. Significantly, it also dropped the name of the ruler to follow Samarqand by stating only his title as *ʿAdl/Khāqān/Muʿaẓẓam*.[88] These developments continued in the next series.

Once in the valley, Yalavach probably used captives for craftsmen as before. Indeed, although the Mongols suffered greatly from the environment, the captives had been thriving:

> On account of the unsuitablity of the climate the greater part of the soldiers fell sick and the strength of the army declined. There were many prisoners with them in that place, and they had also captured Indian slaves in the region, so that in each house there were ten to twenty prisoners … and the climate agreed with their constitution. … Chingiz-Khan commanded that all the prisoners in the army should be killed. The unhappy wretches had no idea of their fate: one night, just before dawn, not a trace was left of the prisoners and the Indians …[89]

Juvayni does not mention craftsmen in this case as he did with Ghazna. Nevertheless, in this large and indiscriminate group, there would have been some

metalworkers. Moreover, Yalavach had probably brought some minters with him. Thus with the river wealth and indigenous craftsmen, he soon struck money again.

At the Kurram Valley, the Mongols issued two types, which perhaps were struck at the two *urdus*, first that of Chingiz Khan and then that of Chaghadai on his return. The types continued to have the same words as the Ghazna money. The reverses, however, added the definite article to the transition piece. As a result, it read *ʿAdl/Khāqān/al-Muʿaẓẓam*. The first type distinguished itself in three ways by having no *nūn* on *khāqān*, giving the valley as the mint on the bottom and providing a simple horizontal arabesque like a tree branch at the top. The marginal design on both sides took the obverse style of the transitional piece of a single linear circle.[90] The second type did not have the mint but did spell *khāqān* correctly. On the obverse, this type split *mu'/minīn*, making the whole legend cover four lines. The margin changed to a dotted line on the obverse and a dotted circle surrounding a linear one on the reverse.[91] Both types show the determination and effectiveness of the government in carrying out its new policy.

HARAT

In the summer of 618 H, Harat had submitted. However, within the year, like the other cities of Khurasan, the city revolted. As noted, Ogedai had left the plains of Ghazna for Harat and lad laid another siege, this time for about seven months. It finally fell in the middle of 619 H. Except for forty survivors, the entire population was eradicated and the place flattened. The description of the outcome varied little from Juvayni's of the other cities in the region except that he left out a zero in the number of survivors, limiting them to only 40 rather than 400.[92] The city remained desolate until 634 H/1236 AD.[93] Ogedai probably wintered nearby in 619 H, awaiting word from his father, whom he subsequently met at Baghlan. Consequently, Yalavach, who had apparently finished minting in Kurram before the massacre in the valley and the departure of the main army to Kafiristan, started to move the mint to Harat. In the process, he might have brought Ogedai's Ghazna prisoners back since there are links among the three coinages.

The thick billon of Harat used the last obverse inscription of Kurram, which split *mu'/minīn* over two lines. On the reverse, a new legend partially returned to the one at Ghazna. It had *ʿAdl/Khāqān/al-Āʿẓam*/"Justice/Ruler/the Supreme".[94] Beyond these basic points, two dies have emerged with minor field variations for both the obverse and reverse. Although the new series again did not state a mint, a different site was indicated by a different marginal design as both sides now took the last Kurram reverse design of a dotted circle encompassing a linear one. At the very end, this design was enhanced by another linear circle on the outside.[95] The issue was slightly lower than the 4.125-gram mithqal, but the unit weight was a substantial increase from the previous billon of Harat, which had been issued at 2.75 grams. Harat struck at the mithqal presumably because it was the centre of the region.

Mint structure

Although the military campaigns suggest the order of minting, the influence one mint had on the design of the next also indicates the mint structure. First, the outer marginal lines helped to identify the place and the connections among them. Thus, the design was developing into a signal of the mint itself. This practice was notable already in the *Khānī* Dirham coinage, particularly that of Balkh, and was later continued in the Adharbayjani mints of the 630s and 640s as well as the Khurasani mints of the 680s.

Beyond the obvious distinctions created by the cartouches, words and line arrangements, another aspect adds even more information about the administrative structure. Artistic flourishes appeared, which were large and bold but not pleasantly integrated into the design. On the obverse, they were the same for all mints with diacritics emphasising the word *al-Nāṣir*. In contrast, the reverse had decorations that did not compliment the inscription. Apparently, they denoted mint officials. Although agents may have been identified by such innocuous marks long before this period,[96] there is no study of a full system. If Yalavach had his minters adopt insignia, such as those found on later series, it was another example of his seminal influence on taxation and money. His most famous tax policy, the Hexagon *qubchur* coinage, and almost all Mongol money after it identified financial directors in this way.

At first, Ghazna did not use the insignia system. Then a triangle of dots appeared at the end of the middle line. Apparently at the time Yalavach went to the Kurram Valley, Master Triangle took over the mint. Subsequently, the man moved directly from Ghazna[97] to Harat.[98] However, he soon disappeared from sight as another manager arrived, who used a mark of intertwining lines. Master Arabesque had gained visibility originally at the main camp in Kurram on some pieces of its first type, probably as Yalavach transferred to the second camp. At Harat, Master Arabesque moved his symbol from a horizontal to a vertical position. There, it appeared on either the left[99] or the right side of the field.[100] Soon, Yalavach seems to have arrived in Harat because most of its coinage had no mark. Therefore, it seems that Yalavach had a team of at least two sub-agents that took over during his absence.

Inscriptions

Although the inscriptions of the *ʿAdl* coinages were concise, the limited verbiage presents a code that requires deciphering. The first problem is that there was no religious statement. Rather, the obverse mentioned only the caliph. The significance of this legend was explained earlier as representing the caliph's spiritual role.

The reverse, however, experienced change, which emphasized that it held the most important message. Even so, it had none of the flamboyant wording expected and was even more pithy than the scant obverse. One way of interpreting *al-ʿĀdil, al-Āʿẓam, Chingiz Khān* or *ʿAdl, Khāqān, al-Āʿẓam* is simply that Chingiz Khan was "the just and supreme khan" or "the true and great ruler". Moreover, the word

al-āʿẓam continued a common phrase: the Khwarazmshah had used *al-Sulṭān al-Āʿẓam* on his Talaqan-Harati coinage.

However, all Mongol coins added *al-ʿādil*. Instead of copying recent Khwarazmian types, it used the greater legitimising phrase of the Qara Khanids. For the Mongols, the difference in words was politically significant on two counts. One was the absorption into the Greater Mongol state of a recognized friendly group, which was sophisticated and prominent in the region. The other was the acceptance of the current social theory of the state in the area, the Neo-platonic view of justice, which was divided into divine, positive and natural law.

The concept of justice came first at the top of the coin. In two of the three main types, the word was the Arabic noun *ʿadl*/"justice" while the third was the active participle *ʿādil*. *ʿAdl* may have been the equivalent of the word *jeng*/"just" in Chinese[101] to imply that Chingiz Khan implemented justice. On the other hand, *rashīd*/"correct, proper" is a better Arabic equivalent of the Chinese *jeng*. Nevertheless, according to the nearly contemporary historians, Chingiz Khan strengthened Mongol society with a new law code or *yasa*, with which the concept of *ʿadl* was highly involved. In fact, reverence for and obedience to this code seemed to have been greater than that for the man himself.[102] As law, the *yasa*'s main theme was justice; and it was compared favourably with the Islamic *shaʿrīa*. Therefore, the close association on these coins of the word *ʿadl* with Chingiz Khan during his lifetime might argue for his acknowledged concern for equality. The term *al-āʿẓam*/"the Highest" or "Supreme" might have been considered by the Mongols as the equivalent of Heaven, which was their concept of God. On later coinage, they put the word for Heaven at the top of the reverse.

However, another possibility is that the word portrayed the economic concept of the conquered land. The words *ʿadl* or *ʿādil* without the definite article, meaning "justice" or "equanimity", had appeared on Islamic coinage since the second century hijra as verification that money was a form of natural justice. Often the word stood alone above the field without any connection to a person. Seventy years after this *ʿAdl* coinage, the Mongols continued to follow this practice by issuing the *ʿĀdliya* copper series. That group continued the policy of stating the name of the coinage, first seen on the *Khānī* Dirham. In this and other numismatic situations, *al-ʿādil* or *ʿadl* could have stood for natural law, which related to the economic function of the coin itself.

Therefore, the first line spoke of natural law and the second of divine law. *Chingiz Khān* or *khāqān* on the third line was the perpetrator of the power of Heaven and the preserver of natural forces on earth and was, therefore, the current form of positive law. In this manner, the idea was somewhat equivalent to the phrase often added to an Islamic ruler's title of *al-dunya wa-l-dīn*/"earth and heaven".

As a result, the inscription according to this analysis could be rendered as "(Natural) Justice, Divine and Positive (Law)". The Chingizid coin thereby alluded to the tripartite division of life embraced by the medieval improvements to Neo-platonism. The idea was thus presented that the leader of the Mongol community

was not to be personally glorified, as had been his bombastic Turkish predecessors. Rather, he had been given power to foster the true path of justice. This theme of divine, positive and natural justice may not have been consciously incorporated in this cryptic series; but it was part of the Islamic milieu and definitely found its way onto subsequent Mongol coinages.

Throughout a study of Mongol money, the reverse message is the most instructive one for imperial concepts and policies while the coin, itself, with its minting formula, provides information about administration. Right from the start, the coinage was perfectly clear about the political situation: the *khāqān* was a new entity who had eliminated the former *sulṭān*. There is no doubt that *khāqān* referred to Chingiz Khan; yet by using a title instead of a name, except in Ghazna, the Mongols produced a subtle but momentous shift in economic attitude. For the early period of Mongol money, the *ʿAdl* coinage gave the most significant statement about Chingiz Khan's view of this new activity of money. For him and his group, a particular person identified by name was not responsible for the coinage; instead, it was the functionary, the head of the state, who was in charge. As a result, the inscription flew in the face of Islamic practice, in which the ruler had to have his name on the coinage or he was not truly independent or important. The need for an individual to be personally responsible for the economic well-being of the realm was not accepted by the Mongols until 674 H. Their early concept was that the group or the institution rather than the individual was the keeper of the norms of justice. In fact, there was less pride and perhaps more pragmatism in this approach than in the current Islamic one. Barthold remarked astutely how the same concept affected the army:

> The exploits of Timur-malik, like the subsequent exploits of Jalal al-Din himself, are examples of personal heroism quite useless to the common cause. On the Muslim side we find heroes with a handful of people performing prodigies of valour (probably exaggerated, for the rest, by their own boastfulness, or that of others), but completely unable to organize larger forces, and for that reason constantly retreating before the main forces of the Tatars. On the side of the Mongols we scarcely ever find examples of personal heroism in this war; the commanders are no more than obedient and skillful executants of the will of their sovereign, who detaches and reunites separate corps of his army as occasion demands, and rapidly takes measures to evade the consequences of occasional failures. The strictly-disciplined Mongol soldiers sought no occasion to distinguish themselves from their companions, but carried out with precision the orders of their sovereign or of the leaders appointed by him.[103]

As a result of this non-heroic view, Mongol coinage almost immediately developed anonymity. The individual person, as leader, was relegated to a group function as the focus for the structure, goals and identity of the Mongol community. A similar situation had occurred under the first Muslims: the force propelling the

Mongol community paralleled the noble sentiments of a pure universal brotherhood under early Islam. As the first Islamic coinage had cited no person, not even Muhammad, much less the caliph, it too stressed the unifying social factor on the coinage: in that case, faith in one God. In this case, unity was achieved by the combined justice of Heaven, a noble leader and the coin. Not only was personal valour unacceptable to the Mongols so too was the use of more than one title to distinguish oneself. Juvayni reported that:

> it is one of their laudable customs that they have closed the doors of ceremony, and preoccupation with titles, and excessive aloofness and inaccessibility. When one of them ascends the throne of the Khanate, he receives one additional name, that of Khan or Qa'an, than which nothing more is written (in official documents); while the other sons and his brothers are addressed by the name they were given at birth, both in their presence and in their absence; and this applies both to commoners and to the nobility. And likewise in directing their correspondence they write only the simple name, making no difference between Sultan and commoner; and write only the gist of the matter in hand, avoiding all superfluous titles and formulas.[104]

Therefore, the appearance of *khāqān* on the *ʿAdl* coinage was as significant as the lack of a name. The difficulty for Mongols to put a name and title together was exhibited on later coinage. Once the ruler's name appeared, there was never a title, not even *khān*. Only three exceptions exist, namely those of the Hulaguid territory, the brief early Persian coinage of Ghazna Mahmud and the Arabic coinage of Uljaytu, all of which exhibited Islamic forms. As a result, the title *khāqān* on this coinage was not an abrogation of personal duty by a ruler but, according to Mongol society, an acceptance of social responsibility.[105]

Moreover, the word *khāqān* or *khān* may well have had a double entendre. An argument can be made that all this coinage did not even give a title. Indeed, the term may refer not to a person but is rather the Mongolian possessive form for government. It simply meant "property of the government",[106] which would have reinforced Shigi Quttqu's theory of taxation. Therefore, a number of points emerge from this coinage; the simplistic words belie a complexity of social forces from east and west that were meeting for the first time.

Weight

The *ʿAdl* series represented a sophisticated and complete monetary system. The best evidence of unity is that the inscriptions are remarkably similar. In turn, they indicated that the exchange values were also standardized. Exchange rates allowed monetary calculations to occur in the marketplace or, more accurately in this case, to form the basis for taxes. The foundation for these functions was a weight system, not the metal. The Ghazna gold had been close to the 4.48-gram mithqal so that

Yalavach had started the city on A-hai's Samarqandi regional system of tribute. However, once the poll tax was levied, the new system was not directly subject to A-hai. Therefore, it based itself on the indigenous mithqal of 4.125 grams. The silver/billon *ʿAdl* coinage of Ghazna and Kurram had a standard of three-quarters of that mithqal, which was an increase from the previous Khwarazmian coinage.[107] Harat, as the capital of its region, struck at the full mithqal. The weights of all the *ʿAdl* money show that Yalavach was establishing an administration based on regional provinces; Ghazna and Kurram were together while Harat remained a separate entity. Thus the weight standards as well as the metal and fabric distinguished this system from that of Samarqand.

In Yalavach's system, all coins could be exchanged within the same mithqal. This phenomenon of coinages weighing basic fractions or simple ratios of the mithqal, not numbers of carats, is the key to understanding coinage at this period. The mithqal was the whole weight unit or "the weight" literally, derived from the Semitic root *th-q-l*/"to weigh" with the *mi-* prefix of instrumentation. Its division formed the weight standards of individual coins at the time. Although for accounting purposes the mithqal was divided into 24 carats, the accretions of the tiny carat did not determine the unit standard. In the theoretical system, for example, the previous Khwarazmian Horseman coinage from the region weighed 16 and the Chingizid coinage 18 carats of the mithqal. The user, nevertheless, viewed the coins according to practical fractions, usually one-half, two-thirds or three-quarters. Both the Horseman and the Bamiyan coins studied by Deyell suggest that the weight of 16 carats or two-thirds of the mithqal existed before the Mongol invasion. Yalavach put the *ʿAdl* money of Ghazna and Kurram at 3.09 grams, placing it securely within the old Ghurid regional system. However, significantly, he improved the coinage with this increased weight. Later in 650 H, the Karts of Harat and Sijistan joined this weight to make a broader region as did Damaghan late into the century. Therefore, this conquest unit standard of three-quarters of the mithqal or 3.09 grams had widespread implications for future coinage in the area.

Metal

The major features of the Zabulistani system were the Neo-platonic philosophic message of the inscription that separated it into divine and positive law, the adherence to the local mithqal weight system and a preference in it of a ratio of three to four. Of equal significance was the fact that the *ʿAdl* coinage did not distinguish among metals in its weight standards. This practice may have been current already in the area south of the Hindu Kush although no research has examined the possibility. The point that metal was not the determining factor of a coinage's weight is particularly clear from the *Chingiz Khān* Ghazna coinage, which had more silver than copper and the billon of Kurram, which were both struck at three-quarters of the billon of Harat. Thus, in Zabulistan, the Mongols did not divide metal by weight; and, in the north, the *Khānī* Dirham was not silver. This blindness to alloy certainly did not normally exist in the west, in which almost

pure gold, silver and copper were struck at separate ratios to the mithqal. Islamic tradition had the *dīnār* of gold at the *mithqāl* and the *dirham* of silver at seven-tenths or two-thirds of the *mithqāl* while the *fals* of copper was free to roam. The names of the metals were derived from Roman coinage. The two systems of the west and the east of Iran were far apart.

Removing the link between weight and alloy was to be one of the most significant contributions the Mongols made to coinage in Greater Iran, the equivalent of leaving the gold standard for modern currencies. Under the Mongols, the Islamic tradition gave way to the Zabulistani one derived ultimately from archaic Greece. The origin of this thorough medieval transformation is the *ʿAdl* series. As the financial system grew stronger, various coinages highlighted the development. In the 650s, as minting returned to the area under Mongka Khan, the eastern practise continued to show its strength with Damaghan and Astarabad issuing both gold and silver at the same weight. Later still in 695 H, Baydu followed the same theory by putting both metals on the same mithqal at Tabriz. Finally in 698 H, Ghazan Khan put gold and silver on the same unit across the empire, which finally emancipated coinage from cumbersome and unnecessary restrictions. By the end of the century, the practice had led to much-needed monetary flexibility.

In conclusion, the Zabulistani area had a confusing history of Greek and Islamic traditions: the Greek practice produced frozen types, which were often pictorial, while the Islamic coin changed as the ruler did and, in general, contained only epigraphy. When Chingiz Khan set up government in Greater Khurasan and Transoxiana, the *Khānī* Dirham followed Islamic tradition and the *ʿAdl* the Greek one. His governor, Yalavach, as the civilian administrator of the non-combatant Mongols of Zabulistan, forced on the *ʿAdl* coinage some Islamic traits, notably purely epigraphic designs. However, as he combined the two formulae, the ruler's name did not automatically appear. In contrast, the anonymity of Greek types continued to prevail. Further, he completely accepted the mint structure of the area, based on the concept of the body politic. That theory specified that the capital has the heaviest coin and regional sites have a proportional lower weight. Through Yalavach, the Mongols adopted this administrative structure based on weight, frozen inscriptions, identification of the mint master and no distinction of alloy. These four factors from Zabulistan were the most influential ingredients for Mongol coinage and financial structure until the early 670s.

Civilian and military withdrawal, 619 H

Unfortunately, after Yalavach had established this structure over the Mongols residing in Zabulistan, he had to abandon it because the military forces were disengaging. Juvayni recounted the turning point of Chingiz Khan's advance to his withdrawal from the area:

> When the army had recovered its health Chingiz-Khan conceived the idea of returning home by a route through India to the land of the Tangut.

> He advanced several stages, but as there was no road, he turned back and came to Peshawar, and returned by the road by which he had come.
>
> Chingiz Khan decided to return from Peshawar to his original home; ... By way of the mountains of Bamiyan he rejoined his heavy baggage, which he had left in the region of Baghlan. He passed the summer in that pastureland and when the season of autumn was come he again took to the road and crossed the Oxus.[108]

It was not a hasty withdrawal in the least. A look beyond the above brief lines exposes the fact that the departure was as much of a campaign as the conquest had been. It was about the beginning of 619 H/1222 AD that Chingiz Khan decided to return to Mongolia, moving out of Zabulistan to spend the summer in the high pastures of the Hindu Kush in the region of Parvan. Shortly thereafter, the army conducted a second thrust into Khurasan, which Chingiz Khan wanted to deal with in person this time. It was then, apparently in 619 H, that Balkh was reduced to rubble. Chingiz Khan had not wanted to be in Islamic territory and had usually bypassed the cities which had submitted. The practice of eradicating them had existed under his sons, Tolui, Ogedai and in particular Shigi Qutuqu, and now during Chingiz Khan's homeward march. There were two factors involved in this policy. The most important one was the Tangut uprising. That territory had been the very first Mongol conquest and lay at the heart of the empire, so trouble there was a serious threat to stability. Unfortunately, Greater Khurasan took the brunt of the Mongol reaction to the revolt. Second, quite aware of anger against them and fearful of their tenuous hold over the late Khwarazmian Empire, which had been obtained so quickly, the Mongols realized that withdrawal put them in a dangerous position. Therefore, at this point, the policy of control switched from occupation to devastation. In fact, there is little evidence from any part of the domain south of the Amu Darya that the Mongols left any permanent imperial organization in the first incursion. In general, *shaḥnas* or agents did not remain behind after the army left. This situation also occurred with the concurrent Mongol forays into al-Jibal and the Caucasus.

On 2 Ramadhan 619 H/6 October 1222 AD, Chingiz Khan re-crossed the Amu Darya; and by early the next month, he was outside Samarqand. Somewhere east of the city, Jochi joined his father and brothers but did not continue further with them, remaining behind.[109] He died five years later, approximately forty years of age, in the second or third month of 624 H/February 1227 AD, six months before his father.[110] Chingiz Khan continued on his way home through the winter of 620 H, taking until the spring of 622 H/1225 AD to bring the entire army back to Mongolia.[111] He succeeded in the Tangut campaign; but two years later, he died in Ramadhan of 624 H/August 1227 AD at the age of seventy-two.[112] The Mongol imperial house never regained full and direct control of Zabulistan.

Retrenchment and development, 619–24 H

Minting ceased in Zabulistan as Chingiz Khan began his return home. Yalavach, as part of the army administration, probably travelled north with him. Presumably, he met Chingiz Khan at Baghlan, at which he was instructed to continue his policy. Therefore, Yalavach apparently minted at the main camp in that area and again, probably in Shawwal near the end of 619 H, as the army rested east of Samarqand. In both places, Chingiz Khan's *urdu*, containing families and flocks at rest, also produced money for the poll tax.

Urdū *coinage, 619 H*

At this point, a new series, the *Urdū* coinage, was issued. On both types known, the influence of the Zabulistani region is evident from, in particular, the main reverse inscription, the first Kurram marginal design of a simple linear circle on both sides, the arabesque, the fabric and the small flan size. Master Arabesque, however, had lost his calligrapher because the first type had crude and basic lettering. Moreover, the obverse jettisoned the caliph to carry only the single word of *Āllāh*, and the reverse changed *khāqān* to *Urdū* to make the inscription of *al-Urdū/al-Āʿẓam/al-ʿĀdil* with perhaps an awkward arabesque below. There is one gold piece known of the first type,[113] which has an illegible marginal legend. However, the normal coinage was silver,[114] which weighed half the mithqal of 4.24 grams. The unit coin of 2.12 grams is an average because the coins had a wide range. Such a remedy implies that they were put in purses for large payments, perhaps for a whole division of the army, not for individual use in a market place. The proposed site of this first *Urdū* coinage is Baghlan, which is not known to have previously used the 4.24-gram mithqal. However, since the weight correlates with the Badakhshani *Khānī* Dirham coin, the type might have come from the wider area.

The second series was silver and had beautiful calligraphy. The reverse removed the word *ʿadl*, and the cartouches had a dotted circle between two linear ones,[115] copying the last Harati design The Harati arabesque was also at the top and bottom of the reverse field, as illustrated in Plate 2.5. Since a skilled calligrapher was available to make the new die, it was probably minted outside Samarqand. In this

Obverse Reverse

Plate 2.5 *Urdū* type (No date; weight: 3.19 grams; metal: billon)

Source: © Copyright The British Museum 1987.1.12.2. Actual size.

series, the weight moved upwards to three-quarters of the same mithqal of 4.24 grams or to 3.18 grams.[116]

Once the khan left the area south of the Amu Darya, he abandoned almost all effort to administer it. On the other hand, north of the river, he continued the attempt probably because Jochi was to remain close by. Moreover, Jochi had followed his father's lead after his reprimand and had appointed the Qara Khitan, Chin Temur, as *basqaq* or governor of Gurganj. Therefore in the last part of 619 H, during which all were camped outside Samarqand, Chingiz Khan instructed A-hai to carry on as the chief administrator of the west. However, A-hai died within a year; and, although his son took over his post, it seems that Yalavach became the person entrusted with financial aspects.

Āllāh *coinage, 620–24 H*

With Chingiz Khan's return, according to numismatic evidence, the administration was revised in Transoxiana so that the government could include all parts of the territories that could possibly be retained. The headquarters remained in Samarqand, but initially Mahmud Yalavach seems to have been in Utrar in 620 H, then Bulghar and back in Samarqand by late 621 H. At that point, he increased his revenue source as a new type of coinage emerged at the beginning of 622 H, strongly modelled on Chinese money. Also in 622 H, Yalavach issued normal tribute money again in Samarqand and sent an agent south to Kurriman. In 623 H, he expanded again his base with a traditional Islamic gold and billon series from Samarqand. The city had another Islamic issue in 624 H at the same time that it struck a Chinese type once more. Yalavach's policy is not described in any literary source but is indicated only by coinage production from 620–4 H. Even so, the progress is highly tentative since most issues do not have dates. Moreover, the money from this period is exceedingly varied; the only unifying element on most of the coinages is the word *Āllāh*, adopted from the *Urdū* coinage.

Most of the army was to leave with the khan, so the poll tax became substantially reduced and less important to government revenue. As a result, once Yalavach was given the post for finances, he established a different structure that combined the poll and tribute systems. There was steppe precedent for this action. For example, the Qara Khitans had required both tribute and head tax.[117] The two type had been operating as separate systems in different regions simultaneously up to this point, but Yalavach now combined them into one in the new *Āllāh* series. Nevertheless, the programme differentiated the taxes by giving each region its own metal. The central region of Samarqand and Utrar had gold for tribute, Jochi's area silver and Zabulistan billon, both of the latter for the poll tax.

Utrar

Yalavach may well have travelled as far as Utrar with Chingiz Khan before stopping. At the old border, he finally exacted tribute from the city with a gold issue. The

coinage used the Samarqandi mithqal of 4.48 grams but struck the unit at three-quarters of it. The reverse had *Qā'ān* at the top, and the obverse contained the standard *shahada*. Below these legends on both sides came the caliph, al-Nasir. This issue continued to exhibit a disjointed understanding of the purpose of obverse and reverse legends as seen on the earlier *Khānī* Dirham series. At the very top above the *shahada* was the mint, but there was no date. In the same position as the mint on the other side lay an ornate arabesque above *Qā'ān*.[118] This is the first appearance of the spelling *Qā'ān*.[119] In it, the *hamza* denoted a softening of pronunciation; the *ghayn* sound as originally represented by *qāf* was reduced to a brief glottal stop. The slight shift of pronunciation may indicate which group stayed behind. Indeed, a voiced plosive for *A* is still found in western Mongolia today. Second since the letter *qāf* was free, the *khā'* sound was transferred to it. This inscription and others that came later offer a hint about the various pronunciation groups that formed the Mongol coalition. This example of a spelling change is perhaps comparable with the various spellings of *Chingiz* in textual sources.

Bulghar

Moving quickly from Utrar, probably in 620 H, Yalavach went north to collect poll tax from Jochi's forces. In the city of Bulghar, the Mongols issued a small-sized silver coinage, which had an obverse of *al-Nāṣir/al(sic)-Dīn Āllāh Āmīr/al-Mu'minīn* while the reverse said only *al-Dīnār/al-ḍarb Bū/lghār*.[120] The use of the word *dīnār* was technically incorrect since it meant a gold coin. Rather, the diwan seems to have used the term to mean simply "coin". The average weight was 1.68 grams or half the normal coin of three-quarters of the 4.48-gram mithqal. The money, quite similar in fabric and obverse inscription to the *'Adl* coinage, was probably used for the same purpose, indicating that Jochi's *ulus* had to pay the *qubchur* poll tax. His group was not at war but residing on the grasslands in the area and, as important, had not paid anything to the central treasury before.

Samarqand

After collecting the Bulghar tax, Yalavach probably returned south to Samarqand late in 621 H for that year's tribute. At first, he continued the former system since a billon *Khānī* type with the date of 621 H was struck, which probably came from Samarqand.[121] However, with the recent death of A-hai, a major reform emerged. In comparison to Samarqand's original coinage, the new money was gold rather than billon. The increase in value was offset slightly by a reduction in the size of each coin. However, the organization of the reform was somewhat disjointed since the dies fit the larger size of the former flans. The unit weight was half the normal unit of three-quarters of the 4.48-gram mithqal, just as the Bulghar coinage had been. Unfortunately, since the gold is poorly struck and the die was made for large flans, the marginal inscriptions are off the edge. Therefore, the mint and date are not secure, but the style links the type to later Samarqandi coinage. This gold

series underscored the missing border inscription by a linear circle on both sides. Inside, the obverse field stayed the same as the last *Khānī* Dirham billon of 619 H; but the reverse field removed the title of the caliph. It read *Qā'ān/al-Imām al-Aʿẓam al-Nā/ṣir li-Dīn/Āllāh* in five lines.[122] There were wavy flourishes at cardinal points, the most elaborate at the top of the obverse.

Kurriman

Soon, a section of the diwan led by Master Arabesque travelled south, back to his Kurram Valley. Earlier in 619 H, when camped outside Samarqand, Chingiz Khan had sent the general, Dorbei Doqshin, to India a second time to capture Jalal al-Din or never to return. The general campaigned actively below the Indus River, which implies that he was in reasonable control of the area north of it. However, for the year 622 H, the sources report no Mongol activity in India.[123] Therefore, the general may have rested his troops in the strategic valley from the rigors of long and difficult campaigns. From all accounts, this year seems to have been the height of his power in Zabulistan. Since the country was still reeling from the obliteration of the retreating army, Dorbei Doqshin could have controlled it without the main force. His reduced number of Mongols would not have required a resident secretariat, so Yalavach's diwan needed only a brief visit. Nevertheless, it expected from the resting troops, as from all the others, *qubchur*.

The town of Kurriman issued a billon series with new legends. The obverse no longer mentioned the caliph, presumably because al-Nasir had died, but instead stressed two basic aspects of Islam, those of God and His messenger. It read simply *Āllāh/Muḥammad/rasūl Āllāh*.[124] The reverse had *Qā'ān/ʿAdil/Kurrimān*.[125] The change in the spelling of the place indicated that the town was the mint site. On both the left and right of the inscription, three-pronged twisting branches appeared to signify that Master Arabesque was in charge. In his former coinage, that of the first type of Kurram from 619 H with the name of the valley, the insignia had appeared only at the top. He seemed to be announcing himself more pointedly this time, first with an additional mark and then by making them more elaborates. Further, the stylistic influence of Samarqand led to his replacing *khāqān* with *Qā'ān*. However, for accounting records, Master Arabesque kept the same standard of the region, minting at three-quarters of the 4.125-gram mithqal.

Unfortunately, Dorbei Doqshin lost the area soon thereafter. In 623 H, the pivotal Kurram Valley was retaken by Jalal al-Din's forces, which issued a large, thin Islamic-style silver coinage in his name at Kurriman.[126] Moreover, more Khwarazmian monetary activity occurred elsewhere south of the Amu Darya, showing the rapid withdrawal or defeat of Mongol contingents. Another silver series was issued in his name but without a date in Balad Ghazna,[127] Qaʿlat Nay,[128] Islamic billon at Tulak[129] as well as a great number of Horseman types with no date. The latter were mintless and thick-flanned with a very small diameter. Another mintless billon type used both sides to proclaim the rightful ruler, *al-Sulṭān/al-Muʿaẓẓam/Jalāl/al-Dunya wa-l-Dīn*, and continued on the other side in a square with *Mengubur/nī*

al-Sulṭān. These Islamic coins weighed the same as the Horseman type of this date at 3.43 grams or 20 carats of the 4.125-gram mithqal. Further north, even Astarabad was lost as Islamic gold coinage was minted for Jalal al-Din but with no date.[130] Therefore, Dorbei Doqshin had made a complete retreat as Jalal al-Din's supporters in the east were able to regroup and successfully regain everything below the Amu Darya. At the same time, Jalal al-Din, himself, was quickly establishing a secure base in the west, having resounding successes in Tabriz and Tiflis. The year 623 H is the same date that Jalal al-Din struck copper in Tiflis,[131] his only coinage from the west. All of this monetary activity provides a sense of the play between his forces and those of the Mongols in the frontier areas.[132] The battle raged on; it had certainly not been won or lost yet.

Samarqand

Before these military reversals, however, Master Arabesque presumably returned from Kurriman to Samarqand. There in 622 H, it was time to collect the yearly tribute in gold. In that year, the great caliph, al-Nasir, died; yet Yalavach continued to honour the office by citing the new one, al-Zahir (622–23 H). He issued coinage probably near the end of the year with the same profession of faith on the obverse as before, but the decoration differed slightly from the previous two types. Instead, another delicate arabesque was added to the bottom. Since it resembled the one on the beautiful second *Urdū* series struck outside the city, Yalavach probably used the same engraver. This reverse stated *Qā'ān/al-Imām al-Aʿẓam/al-ẓahir bi-llāh/Āmīr al-Mu'/minīn*, again in five lines.[133] A similar billon issue was also minted citing him,[134] which appeared perhaps later in 623 H. In both cases, the place of issue is actually not provided. It is notable that the weight of the gold is more than five times that of the billon coin; the relationship followed Islamic not Zabulistani tradition. Even so, the billon was a half unit of the normal coin of three-quarters of the 4.48-gram mithqal while the gold was over double the mithqal.

Later, an undated gold type, which did not mention any caliph, was issued perhaps in 624 H. After the death of al-Zahir, Yalavach apparently no longer recognized an individual in the office of caliph. The obverse followed the same short *shahada* as before while the reverse cited both Mongol and Islamic leaders with titles only, not names. It read *Khāqān/al-Imām a/l-Aʿẓam Amīr/al-Mu'minīn*.[135] Interestingly, it re-employed the term *khāqān* from the Zabulistani area rather than *Qā'ān*. All three *Āllāh* gold issues presumably of Samarqand are exceedingly rare, and only one coin is known to date for each type discussed. Their assignment to Samarqand is conjectural, but they form a group with calligraphic, stylistic, inscriptional and weight similarities.

Cash coinage, 622 and 624 H

Chingiz Khan's slow return home apparently established secure routes and guard posts that encouraged trade. Once caravans started to arrive in Samarqand from

the east, they needed to pay customs duty. Therefore, Yalavach installed another system to add to the poll and tribute income. It was announced by a celebratory issue in Muharram of 622 H of thin, wide-flan billon, a reversion to traditional fabric and metal. On the other hand, the type changed completely; it contained only the date and mint in Arabic, and the same legend appeared on both sides.[136] It might have been an adaptation of Song money. However, that coinage was stamped on only one side so that, apparently, if there were two sides, they should be the same. Therefore, the design suggests that under A-hai's son, the Mongols converted "the eyeless cash" to make it look more familiar to eastern traders. The type of calligraphy was square and squat, resembling monumental kufic and similar to the style of the initial 617 H coinage. Therefore, presumably, Yalavach employed the same calligrapher and fabrication house for this issue.

Samarqand also minted another thin Chinese cash-style billon two years later. Apparently in alternate years, caravans of Central Asian merchants arrived at the market town of Samarqand on the plain below the citadel of Afrasiab. Samarqand had not suffered as seriously as the major public buildings had around the palace. Although commence had revived, unfortunately, the standard for both issues is unknown since no weights were reported.

The 624 H issue developed the earlier inscription a step further by stating on both sides *Mengū/Chingizī/Chingiz Khān*/"Money/correct/Chingiz Khan" with the minting formula around the margin.[137] This inscription is exceedingly curious and does not relate easily to western coinage tradition. The interpretation of *mengū* (*munggu*) in the legend as "money" is accepted by most numismatists,[138] but the second term needs more explanation. *Chingiz* is the Mongol form of the Chinese word "correct" or "proper". The local area added the Persian suffix *-i*, following the *Khānī* Dirham practice to mean "This is money of a particular kind". Therefore, in this Chinese–Persian linguistic combination, the issue said it was "legal tender". However, the reason Chingiz Khan's name appeared below is obscure. It may have been issued in honour of his death or reflected vaguely the Chinese tradition of putting the dynasty's name on its coinage.[139] This series was only the fourth and the very last coinage to contain his name. However in this one, the inscription and the metal complimented Chinese practices; The legend moved from the Islamic profession of faith to a simple statement that the coin was legal tender.

Review of Yalavach's financial administration

To reiterate, Mahmud Yalavach was apparently in Utrar in 620 H, then went to Bulghar in the same year and arrived in Samarqand in late 621 H after the death of A-hai. He revised A-hai's tribute in Samarqand, changing from billon to gold, and collected it from 621 through 624 H. Meanwhile, at the beginning of 622 H, he sent Master Arabesque south to Kurriman; and he levied a trade tax in Samarqand with copper in 622 and 624 H.

Therefore, the *Āllāh* and cash types indicate the geographical extent of central Mongol control after Chingiz Khan's return to Mongolia. Further, the weights of

each group reveal the basic elements of the financial structure of the nascent empire. Since there are various and confusing mithqal standards and divisions, Table 2.2 reduces each issue to its bare features of weight and conjectured dates.

The main *ʿAdl* coinage was based on the 4.125-gram mithqal with the capital issuing at that weight and the subordinate mints, those in the fields outside Ghazna and in the Kurram Valley, at three-quarters of the whole. After the initial *ʿAdl* series came the derivative *Urdū* types. Once the government changed from the *Urdū* to the *Āllāh* coinage, the mithqal rose again to 4.48 grams. Since all of these coinages used sub-divisions of a mithqal, the system was a significant improvement over the previous *Khāṇī* Dirham series. Nevertheless, the range of weights was remarkably wide, not allowing pieces to be used by tale. Moreover, the *Āllāh* coinage followed Islamic tenets, first by using all three metals separately and then by making them more pure. As a result, Yalavach had transformed A-hai's initial system but still kept one practice from Zabulistan, namely no difference based on metal; the weight of some of the gold coinage from Samarqand was the same as the silver from Bulghar. The preferred unit was generally one-half of the usual division of three-quarters of the mithqal or 9 carats. The figure, although unexpected and seemingly without precedent in the region, established the foundation of later Jochid and Chaghadaid coinages in the steppe lands. They employed the 4.48-gram mithqal and this division of it. The mithqal's history in Samarqand has not been studied, but it had been used further south in some areas at least since the Bamiyan Ghurids.[140] Apparently, Yalavach maintained the established exchange structure with various southern areas, which encouraged trade. As a result, from the beginning of Yalavach's administration of Transoxiana, the belt from Bulghar to Samarqand employed the 4.48-gram mithqal; and later administrators were to continue using it. The belt was subsequently divided geographically by politics but remained intact

Table 2.2 ʿAdl, Urdū and *Āllāh* coinages, 618–24 H

Type	*Mint*	*Weight*	*Date*
Chingiz Marw	billion	½ *Khānī* Dirham of 4.48-gram mithqal	618 H
Chingiz Ghazna	gold	4.48-gram mithqal	618 H
Chingiz Ghazna	billon	¾ of 4.125-gram mithqal	618 H
ʿAdl Kurram	billon	¾ of 4.125-gram mithqal	618 H
ʿAdl Harat	billon	4.125-gram mithqal	619 H
Urdū Baghlan	billon	½ of 4.24-gram mithqal	619 H
Urdū Samarqand	billon	¾ of 4.24-gram mithqal	619 H
Āllāh Utrar	gold	¾ of 4.48-gram mithqal	620 H
Āllāh Bulghar	silver	½ of 3/4 of 4.48-gram mithqal	620 H
Āllāh Samarqand	gold, billon	4.48-gram mithqal	621–4 H.
Āllāh Kurriman	billon	¾ of 4.125-gram mithqal	622 H
Cash Samarqand	billon	no weight available	622, 624 H

financially. For example, Dhihistani silver and gold weighed 3.36 grams or 18 carats, i.e. three-quarters of the 4.48-gram mithqal, under Mongka and Abaqa Khans until the reform of 679 H. Later, Arghun and Ghazan tried to establish monetary alliances with the steppe using this mithqal. In this pivotal commercial area, money and trade ignored political boundaries. It continued to value the mithqal that A-hai and Yalavach had re-enforced in their policies.

In conclusion, there was a three-tier system of taxation, one for subjects, another for Mongols and a third for merchants. The conquered people paid yearly tribute in Samarqand in gold. The Mongol troops in Bulghar and Kurriman paid poll tax in silver or mixed copper–silver alloy according to local weight standards. The revived Central Asian trading houses paid customs duty in a Khitan–Song copper type. As a result, money reflected the forms of political administration and the variety of taxation policies. The *Āllāh* coinage also indicated that, during Chingiz Khan's lifetime, the whole area was subservient to him: even the outposts of Kurriman and Bulghar were required to give to the imperial treasury. There was no defined province except insofar as the area north of the Amu Darya rendered monetary taxes.

Yalavach had developed a complicated taxation system. To manage it, he issued a different type of money for each tax. He seems to have recruited his task force from Qara Khanid personnel as suggested by both the calligraphy on the *Khānī* Dirham and the cash types as well as the legend of his Khurasani and Zabulistani coinage. Although he relied heavily on precursors from Uzgand, he was also influenced by other traditions. In particular, the money for the customs duty had many similarities to Chinese coinage. His programme was steady and deliberate because A-hai and his son were effective in stabilizing the area. From the capital of Samarqand, they had organized the newly conquered sedentary populations, the Mongol forces left behind in Bulghar and Kurriman and, the reason for the invasion in the first place, had re-vitalized trade. Therefore, two years after Chingiz Khan had left Transoxiana, Yalavach had completely transformed the region financially into a viable part of the Mongol Empire.

There were clouds on the horizon nevertheless. After 622 H, although the literary sources are silent, the numismatic evidence shows that the Mongols did not reassert their authority south of the Oxus; and Chingiz Khan died soon after in 624 H. With that event, all minting activity came to a halt. Officials and active administration entered a holding pattern. Everyone concerned himself with the absorbing requirements of the empire's future and awaited the results of the *quriltai* in Mongolia.

Notes

1 These items included a bride for Chingiz Khan, hunting falcons, satins and particularly camels. The latter are noted especially as being *qa*, that which is given and belongs to the khan; *The Secret History of the Mongols*, trans. Francis Woodman Cleaves (Cambridge, MA, 1982), §§249–50.

2 Nicholas Rhodes, "Coinage of the Mi-nyag, Tangut people, the Xi Xia Dynasty", *The Numismatic Chronicle* 162 (2002); 315–32.

3 After the Qara Khanid defeat, one of their generals founded the Qutlugh Khanids in Kirman.

4 J. J. Saunders, *The History of the Mongol Conquests* (London, 1971), 54–5. A careful assessment of the events leading to the Utrar incident and its pivotal importance to Mongol westward expansion is found in H. Schwarz, "Otrar Revisited", *Essays on Mongol Studies: Commemorative Volume to the 70th Year Birthday of Academician Sh. Bira* (Ulaan Baatar, 1998), 195–208.

5 Buell believes Samarqand to have been the administrative centre partially on the basis of coin evidence, but the types he alludes to were issued later than 617 H; Paul D. Buell, "Sino–Khitan Administration in Mongol Bukhara", *Journal of Asian History* 13 (1979), 123–51; ft. 7. Other evidence suggests that Bukhara was the centre, so no firm statement can be made about a centre until about 621 H.

6 Juvaini, 465.

7 The Persian historian, Juvayni, accused Terkin Khatum, the mother of Sultan ʿAla al-Din Muhammad, of having too much power. She had many officials, including Tort Aba, appointed from her tribe; and most of the army came from it. They were not Muslim, and their barbaric ways and cruelty provoked the subjects to resent the regime, according to Juvayni, 465. Juvayni also states that she was from the Qanqli clan, which resided around Qara-Qum, northeast of the Aral Sea, and which was closely associated with the Qipchaks. However, elsewhere he said she was from the Oran clan, 378; and other sources differ, 465, ft 2.

8 David O. Morgan, *The Mongols* (Oxford, 1986), 145.

9 The governor will be referred to hereafter simply as A-hai; Paul D. Buell, "Yen-lü A-hai, Yen-lü ʻu-Tʼu-hua", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*, ed. Igor de Rachewiltz, Asiatische Forschungen (Wiesbaden, 1993), 112–21; 116.

10 *Ibid.*, 117.

11 *Ibid.*, 115.

12 Juvaini calls him *Tausa*.

13 Buell, "A-hai", 118.

14 *Ibid.*, 119.

15 *Ibid.*, and also Buell, "Sino–Khitan", 124.

16 Buell, "A-hai".

17 Juvaini, 105.

18 *Ibid.*, 122.

19 Igor de Rachewiltz, "The Poems of Chʿu-Tsʿai", *Monumenta Serica: Journal of Oriental Studies of the Catholic University of Peking* (1962), 1–28. The poet did not utter a whimsical complaint. Local coins were sometimes pierced with a small hole in the centre to allow a cord for stringing them. Note a large Islamic-style billon coin from 602 or 604 H of the last Qara Khanid ruler of Uzgand, Ulugh Sultan Qadr (600–9 H), British Museum 1972.8.12.6; 7.01 grams, with a small central hole.

20 Many of the coins of Samarqand and Bukhara are listed by Elena A. Davidovitch, *Denezhnoe Khozeq iaistvo srednei Azii posle mongol-skogo zavoevanieq ia i reforma Masʿud Beka (XIII V)* [The Monetary Economy of Central Asia after the Mongol Conquest and the Reform of Masʿud Beg in the Thirteenth Century] (Moscow, 1972), 13–14.

21 Steve Album, private collection; 4.75 grams.

22 V. V. [W.] Barthold, *Turkistan Down to the Mongol Invasion*, fourth edition, ed., E. J. W. Gibb Memorial Trust (London, 1977), 414–16.

23 *Secret History*, 201.

24 *Ibid.*, 433–7.

25 Saunders, 56; and John A. Boyle, "Dynastic and Political History of the Il-Khans", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle (Cambridge, 1968), 303–421; 310.

26 *Cf.* I. P. Petrushevsky, "The Socio-Economic Conditions of Iran under the Il-Khāns", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle (Cambridge, 1968), 483–537; 487, in which he cites sources reporting that Balkh did not recover until at least 1330 AD.

27 Michael Fedorov, "Qarakhanid Coins of Tirmidh and Balkh as a Historical Source", *The Numismatic Chronicle* 163 (2003), 261–86; 278.

28 British Museum OR 2406; 5.95 grams. Longworth-Dames reported a coin of this design with the date of 617 H and the mint of Samarqand; M. Longworth-Dames, "The mint of Karramān with special reference to the coins of the Qarlughs and Khwārazm-Shāhs", *Journal of the Royal Asiatic Society* 1 (1908), 389–409; 407–8. However, since he did not read *khānī* correctly and there was no plate, his attribution is suspect.

29 Ashmolean Museum 8; 4.26 grams.

30 Steve Album, private collection; 4.20 grams.

31 Ashmolean Museum 1; 4.17 grams. The average weight of both coins is 4.185 grams, putting them close to the 4.24-gram mithqal. Two subsequent coinages from adjacent regions seem to have been on this standard as well, suggesting that the mithqal was the one intended here. The borders of both coins had a dramatic and wide zigzag pattern.

32 The normal title of *Āmīr al-Mu'minīn*/'Leader of the Faithful' was appropriate for a unified state which could defend or challenge others. Such an interpretation did not serve the agents of Chingiz Khan, who stressed the caliph's religious role instead.

33 Consult John Scott Deyell, "Living Without Silver", PhD diss., University of Wisconsin (Madison, 1982), 289, for a study of the mint of Qunduz.

34 Some reports of this coinage do not list *khānī* or have the expected line divisions. However, the word *khāni* has not been read by some, e.g. Longworth-Dames. I have not seen these coins; so I am following Davidovitch, 10–11, who reports this type for 627 and 628 H. Unfortunately, the sources from which she has worked give this type impossible dates since the caliph died in 622 H. Rather, Bukhara minted this type apparently in 618 and 619 H.

35 Davidovitch reports that the issues may have begun in 618 H; however, there are extant specimens for only 619 H.

36 Steve Album, private collection; 7.61 grams.

37 Including Types 5 through 10 of Davidovitch, 17–19.

38 In comparison, the word had the same purpose as *qa* for the tribute of camels from the Tangut.

39 Davidovitch, 11.

40 American Numismatic Society, 1918.125.M; 6.20 grams. The metal is billon, and the date is worn.

41 Sotheby Auction Catalogue, June 1987, lot 908; no weight provided. The gold is from Astarabad of ʿAla al-Din Muhammad's father, Tekish (567–96 H).

42 Stanley Lane-Poole, *Catalogue of Oriental Coins in the British Museum*, Vol. 2, "The Coins of the Mohammadan Dynasties" (London, 1876), 182–3, no. 591.

43 Clifford Edmund Bosworth, "The Political and Dynastic History of the Iranian World", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle (Cambridge, 1968), 1–202; 184, 202.

44 Unfortunately, Davidovitch gives no weights for the Samarqandi or Bukharan coins she cites. Half the *Khānī* Dirham weight is 2.60 grams, which became common later. See *infra* Chapters Three, Five and Nine for Gurjistan, Chapter Four for Bulghar and Chapters Eight and Nine for Khurasan.

45 Michael Michner, "Multiple Dirhams of the Saminid–Ghaznavid Period from North-East Afghanistan", *Information Sheet* No. 5 (August, 1973); Oriental Numismatic Society (London), 1–13; 1. The variety of these Mongol thin copper coins followed the precedent of numerous types issued in Tukharistan before the invasion; Deyell, 289. That profusion had been partially caused by the conquest of Tukharistan by the Khwarazmshah, ʿAla al-Din Muhammad, only four years earlier in 612 H. The period did not allow much time to develop a comprehensive empire-wide monetary system if the shah had contemplated doing so.

46 Michner, 4.

47 Juvaini, 151. Coinage from Balkh, Marw, perhaps Naysabur and Ghazna has been recovered but nothing as yet from Harat.

48 *Syllogae Numorum Arabicorum Tubingen:* pre-publication list, 96-37-30; 2.56 grams. The spelling is clearly *Ch.N.K.Z.* There is no doubling of the voiced plosive, and there is definitely the voiced fricative *zā'*, not *sīn*. This study has used this spelling to produce *Chingiz* rather than *Chinggis* favoured by Chinese experts. The difference may not lie solely in the capabilities of alphabets to represent sounds but in pronunciation within the Mongol groups themselves.

49 Bernard O'Kane alerted me to this inscription in his Yashartir Lecture, School of Oriental and African Studies, University of London, 6 December 2002. Publication forthcoming.

50 A.Yu. Yakubovsky, "Dve nadpisi na severnom mavsolei 1252 g.v. Uzgende" [Two Inscriptions in the Northern Mausoleum of 1252 in Uzgende], *Epigrafica Vostoka* 1 (1947), 27–32. Although the inscription included many Turkish words, it reflected the proper practice of Muslim culture. "Islamic names generally have five elements in a standard order: (1) the laqab, an honorific title; (2) the kunyA, a patronymic; (3) the ism, a given or personal name; (4) the nasab, a genealogy; and (5) the nisba, an epithet of origin or affiliation;" Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 36.

51 For example, Ibrahim Arslan al-Husayn (559–74 H) issued a billon type with the inscription of *al-Qāqān al-ʿĀdil al-Aʿẓam Nusrat al-Dunya wa Dīn*. His son, Ahmad b. Ibrahim (574–607 H), was under increasing Khwarazmian pressure and named some of his billon *Manṣūrī* but continued to use the title of *al-Qāqān al-ʿĀdil*. Later, the same pressure seems to have made him abandon *al-qāqān* for *al-sulṭān*. A billon piece from 603 H reads *al-Sulṭān al-ʿĀdil al-Aʿẓam*. All inscriptions are from Tobias Mayer, ed, *Syllogae Numorum Arabicorum Tubingen: Nord-und Ost Zentralischen. xv b. Mittelasien* II (Berlin 1998); arranged by mint, Uzkand; 114 (3.05 grams), 116 (4.33 grams), 121 respectively.

52 Juvaini, 165. Juvayni dealt with the turmoil that accompanied the conquest of the area in some detail. He has the city totally devastated three times and more than a million people killed, but then another 10,000 are able to revolt again. There is much hyperbole with many stock phrases and sentiments, and they surface again in his telling of other campaigns.

53 Tubingen, pre-publication list Gai C1; 3.19 grams, and GA1 C2; 3.00 grams.

54 Juvaini, 176. Notably, according to the author, once again 400 craftsmen were carried off to Transoxiana; and the place was so thoroughly spoiled that nothing was left. The numbers and sentiment match so closely the same descriptions of Marw that the real facts seem to be obscured. In particular, Naysabur was a major city ten years later when Juvayni's father was a leading figure in it.

55 British Museum, 1974.2.11.2; 3.16 grams. It has the date of 618 H but is without a mint. Nevertheless, the museum attributes it to Ghazna. The *shahada* was on the obverse while only the caliph's name appeared on the reverse. Since the margin cannot be fully read for the mint and there are no words common to the Mongols, the

coin may have been issued early in the year by Jalal al-Din. The weight is unhelpful, suggesting a unique emission.

56 Shigi Qutuqu (*ca.* 1180 to *ca.* 1260 AD) was the chief judge and lawgiver, whom Chingiz Khan had appointed in 1206 AD. In relation to Zabulistan, however, he has a gory heritage. Ratchnevsky says that Juvayni noted, "before the events leading to his defeat at Parvan, Shigi Qutuqu had sacked the city of Ghazna with a force of 10,000–12,000 men, burned the mosque, and killed a great number of inhabitants. Moreover, after the capture of Merv in the same year, 1222, Shigi Qutuqu had destroyed the last remnants of that city. Juvayni states also that Shigi Qutuqu was with Chinggis Qan on the Indus, where he was put in charge of the prisoners and captive artisans" (85), who were subsequently slaughtered. There are several problems with this commentary, emanating from both authors. However, Ratchnevsky argues convincingly that the version is untrue in *The Secret History* that Shigi Qutuqu was a Tatar chief's son. He considers that Shigi Qutuqu was Chingiz Khan's first son, though adopted, without tribal affiliation (78). Otherwise, it is hard to explain the khan's protection after the crushing defeat at Parvan (82). Later under Ogedei, Shigi Qutuqu held the same responsibilities in the territories he had under Chingiz Khan (75). A number of these responsibilities included some administrative organization. For example, the viceroy, Chinqai, and Shigi Qutuqu carried out a census in northern China in 1235–6 AD (86). In his later years, according to some scholars, he may have compiled *The Secret History of the Mongols*; P. Ratchnevsky, "Shigi Qutuqu", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)* (Wiesbaden, 1993), 75–94; and Paul Buell, "Chinqtai", *In the Service of the Khan*, 95–111.

57 Juvaini, 133, named him Mama Yalavach, whom Barthold, *Turkistan*, 444, does not consider to be Mahmud Yalavach.

58 The first note of his official appointment was at the *quriltai* of 626 H, Juvaini, 107, which is long after numismatic interest in him.

59 Thomas T. Allsen, "Mahmud Yalavach", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)* (Wiesbaden, 1993), 122–7.

60 *Secret History*, sect. 203, which states that Yalavach and his son, Mas'ud, were from Gurganj.

61 Allsen, "Yalavach", 122.

62 Juvaini, 357–8. The suggestion was first made by Barthold, which Allsen, "Yalavach", believes possible.

63 *Shahna* is the Persian, *basqaq* is the Turkish and *daragchi* is the Mongolian word for senior government agent.

64 "Kara Khitay", *The Encyclopaedia of Islam*, second edition (Leiden, 1973), 582, by C. E. Bosworth.

65 "Ilek Khans", *Encyclopaedia of Islam*, second edition, Vol. 3 (Leiden, 1971).

66 Allsen, "Yalavach", 123; and Juvaini, 107.

67 Allsen, *ibid.*, goes on to say that Mahmud Yalavach also devised "a sweeping tax reform, which started in the early 1230s. It had two categories, a poll tax on all adult males, the *qubchir*, which was paid in coin, and a land tax, the *qalan*, which was remitted in-kind. All other taxes, most particularly the endless extraordinary levies and exactions of the Mongolian princes, were abolished. Further, Mahmud used his influence to persuade the imperial court to curb its expenditure. To this end, he tried to convince Ogedai that, as the ruler, he had to set an example of frugality for the rest of the court. This effort Mahmud was only partially successful in achieving", 123–4. As detailed in the rest of this chapter, this assessment is too broad and general to afford much insight into monetary and fiscal development.

68 *Ibid.*, 126.

69 Allsen states that the system was formed in the early 1230s; however, according to evidence examined in the following pages, Yalavach probably formed the basic structure in 618–19 H.

70 *Ibid.*, 127.

71 *Ibid.*, 128.

72 Two weeks is about the time it takes to travel from Ghazna to the Indus River, so presumably Jalal al-Din was already encamped at the Indus making his preparations for withdrawal.

73 The route and time of battle are open to question as are many points of Mongol activity in Afghanistan; Barthold, "Turkistan", 443–5.

74 Boyle, "Il-Khans", 320.

75 Juvaini, 134–5.

76 *Ibid.*, 135.

77 *Ibid.*

78 *Secret History*, para. 252. Compare this episode with the capture of Kuchluk's personal treasure by the Qara-Khitan army. So much wealth only divided those leaders; Juvaini, 300.

79 The mint of Ghazna has been considered the site for all *'Adl* coins by Brian Hannon in "Eine Münze des Tschinghiz Khan", *Münster Numismatische Zeitung (Holger Dombrowski Münzenhandlung)* Lagerkatalog 59 (June, 1974), 7.

80 For example, Barthold from Juvayni reported that "the main body of the army besieging Khojand consisted of divisions collected from Utrar, Bukhara, Samarqand, and other conquered 'towns and villages', amounting to 20,000 Mongols and 50,000 prisoners"; *Turkistan*, 417. Although these are two of Juvayni's favorite numbers, it is the proportion rather than the accuracy of the count that is important for this analysis.

81 A. K. S. Lambton, "Mongol Fiscal Administration in Persia", *Studia Islamica* 64 (1986), 79–99. *Qubchur* at this time was poll tax from ordinary Mongols, 90; and *kharaj* was tribute from subject populations, 87.

82 It relinquished the title of *al-Khāqān*. Bibliothèque Nationale 1978.180; 3.10 grams.

83 Sources are unclear whether one or both of them went to the valley.

84 Juvaini, 136.

85 Peter Jackson, "Jalal al-Din, the Mongols, and the Khwarazmian Conquest of the Panjab and Sind", *Iran* XXVIII (1990), 45–54; 47.

86 Longworth-Dames, 390.

87 *Ibid.*, 391.

88 Ashmolean Museum 9; 3.03 grams.

89 Juvaini, 137.

90 British Museum 1883.10.4.2; 3.07 grams.

91 British Museum 1889.9.2.6; 3.18 grams.

92 There are conflicting accounts of events at Harat after the disengagement of the ally; Boyle, "Il-Khans", 315–16.

93 I.P. Petrushevsky, "The Socio-Economic Conditions of Iran under the Īl-Khāns", *The Cambridge History of Iran*, Vol. 5, *The Saljuq and Mongol Periods* (Cambridge, 1968), 483–587; 487.

94 British Museum 1967, 1.12.4; 4.03 grams.

95 Steve Album, private collection; 4.07 grams.

96 One engraver put his name on Buyid coins, but he inscribed it in microscopic proportions. A single mark was easier to engrave and could be larger.

97 Fitzwilliam Museum 1641.1; no weight.

98 Steve Album, private collection; 4.17 grams.

99 Bibliothèque Nationale 1974. 5138; no weight.

100 British Museum 1967.1.12.4; 4.03 grams.

101 The Chinese word may have led to the new ruler's title. "The steppe people were accustomed to the titles and official ranks conferred on them by the Chinese, their nominal overlords. So the title they now chose for Temujin was taken from a Chinese word *jeng*, meaning right, correct or chief. They added to it the '-s' which the Mongol language demanded; and so they named him Jenggis Khan, the true, rightful or chief ruler"; R. P. Lister, *Genghis Khan* (New York, 1969), 100. However, Igor de Rachewiltz disagrees with this interpretation in "The title Chinggis Qan/Qagan Re-examined", *Festschrift zum 90. Geburtstag von Nikolaus Poppe* (Wiesbaden , 1989), 281–98.
102 The likelihood that Chingiz Khan created such a code has been questioned. Consult Morgan, *Mongols*, 96–9, and his fuller discussion in "The 'Great Yāsā of Chingiz Khan' and Mongol Law in the Ilkhānate", *Bulletin of the School of Oriental and African Studies* 49 (1986), 163–76.
103 Barthold, *Turkistan*, 418–19.
104 Juvaini, 26–7.
105 The contrary view was held by Barthold, who stated that Chingiz Khan had no theory of society but that everything he did was for the benefit of himself, his family and close adherents. "There is no evidence of any sort that he was open to the idea of labouring for the good of the whole nation, even in the form in which this idea found expression in the Orkhan inscriptions"; Barthold, *Turkistan*, 461.
106 The most specific example is *qa*, as already stated, *Secret History*, para 249, as used for the tribute of the Tangut: "... many camels and, causing them to become *qa*, shall give ...". The possessive suffix in Mongolian is *-ni*. The *i* sound, although short in Mongolian, was written in the *Khānī* Dirham series by the long Arabic vowel of yā'. If the calligrapher considered the sound or length short, then he would not have indicated it in the spelling on this series. *Qāf* could also be rendered as *khā'* in Arabic script. The use of *qāf* for *khā'* for the same aspirant sound occurred more than once in the Mongol period, as already identified in Qara Khanid coinage. The *qāf* also appeared for *ghayn* on Ghazan Khan's first coinage in 694–5 H. Therefore, spelling is an added problem.
107 In comparison, the previous Khwarazmian Horseman was lower at 2.75 grams or two-thirds of the same mithqal.
108 Juvaini, 135–9.
109 Barthold, *Turkistan*, 457.
110 *Ibid.*, 458.
111 Boyle, "Il-Khans", 322.
112 Barthold, *Turkistan*, 459. However, his exact date of birth is unknown. Morgan, *The Mongols*, 55, explains the other possibilities.
113 Bibliothèque Nationale, no number available; 3.48 grams.
114 Bibliothèque Nationale, no number available; 2.23 grams. For this study, these coins were found only at the Bibliothèque Nationale. They weighed from 1.62 to 2.67 grams.
115 British Museum 1967.1.12.2; 3.19 grams.
116 These *Urdū* coinages may have been struck much later. From late Ogedai to Hulagu's march west, the central steppe cities kept frozen inscriptions. However, their similarity to the Zabulistani system suggests this period for dating them.
117 Juvaini, 357.
118 Mayer, mint spelled *Otrār*, Nos. 6 and 7; 3.45 and 3.34 grams respectively.
119 The change in spelling contradicts Boyle's thesis that *Qā'ān* was a title reserved only for Ogedai. John Andrew Boyle, "On the titles given in Juvaini to certain Mongolian princes", *Harvard Journal of Asiatic Studies* 19 (1956), 147–52.
120 Lane Poole, Vol. 10, ii (p. 191), 339 M; 1.91 grams.
121 Tubingen pre-publication list of May 1997; GA1-E1; 7.62 grams.
122 Steve Album, private collection: 1.66 grams.

123 Jackson, "Jalal al-Din", 50.
124 There is no *ālif* to the beginning of the second *Āllāh*, a common practice at the time. The elision of the *lāms* of *rasūl* and *Āllāh* swallowed the *ālif* in pronunciation, faithfully represented in the spelling.
125 British Museum 1885. 5. 10. 22; Lane-Poole, 5 t; 3.02 grams.
126 American Numismatic Society 1976.262.2; 3.48 grams. The mint is *Kurrimān*; and the date is 62x H, which is comparable to British Museum 1922.4.24.3; 5.82 grams. In the latter specimen, the mint is off the flan; but the date is 623 H. The museum attributes it incorrectly to Ghazna.
127 Muhammad Limbada, private collection; 8.15 grams. This weight is double Ghazna's mithqal.
128 Muhammad Limbada, private collection; 6.30 grams. This coin was a double; others show a standard of 3.09 grams for the unit.
129 Muhammad Limbada, private collection; 2.60 grams.
130 Muhammed Limbada, private collection; 3.10 grams. The coin is clipped so the date is off the flan. The purity, judged visually, is about 80 per cent fine; but the weight probably matched the rest of the system.
131 Lang, 28.
132 Many Kurramis may have returned with the retreating Mongols at this time. A large group of them still existed in Astarabad in the early twentieth century; H. L. Rabino, *Mazandaran and Astarabad*, E. J. W. Gibb Memorial Series, n. s. VII (7) (London, 1928), 76–7. Caution is advised since this term was also applied to the Negudaris of a later date.
133 Steve Album, private collection; 9.30 grams.
134 Smithsonian Institution 88.193.18; 1.64 grams.
135 Sotheby Auction Catalogue, April 1982, lot 18; no weight. Almaligh used this hub much later in 637 H on gold; Mayer, "al-Maligh", no. 78.
136 Davidovitch, 15.
137 *Ibid.*, 16. This type may have the same inscription as reported for Bukhara in the Tubingen pre-publication list, GA1 B2; 4.38 grams. However, on that coin the mint is given and the metal is gold.
138 *Ibid.*
139 However, the Mongols did not have a Chinese dynastic name at this point.
140 Deyell, 290, does not identify the whole mithqal but calls three-quarters of it or 3.36 grams the 'dehliwala standard'.

3

JALAL AL-DIN

Collapse of the old order

Pursuit of the Khwarazmshah

When Chingiz Khan was at Samarqand in 617 H, he sent two of his best generals, Subedei and Jebe, to track down the fleeing Khwarazmshah, ʿAla' al-Din Muhammad. They reached Naysabur, which submitting was spared this time. Then, in the summation of a modern historian, they:

> Parted company, evidently quite uncertain as to the direction of the sultan's flight. Subedei turned back south-eastwards to Jām and then circled round to the north-west through Tus, Raḍkan and Quchan to Isfara'in. Here he may have picked up the sultan's trail, for he followed in his tracks along the great Khurasan trunk road as far as Ray. Meanwhile Jebe, who had made for the district of Juvain to the north-west of Nīshapur, had proceeded from thence into Mazandaran, where he carried out great massacres, especially in the Amul region, before crossing the mountains to link up with Jebe at Ray. ... At Ray the Mongols learnt of the sultan's departure in the direction of Hamadan and Jebe set out in his pursuit. Entering Hamadan he received the submission of the governor and set a shahna over the town. ... The greater part of ʿIraq-i ʿAjam was then subjected to slaughter and rapine until, with the approach of winter, the Mongols withdrew northwards to the Mughan Steppe. That troops were sent from these winter quarters in search of the sultan is possible but unlikely; the forces which chased him along the Caspian littoral and which captured the castles in which his harem had sought refuge were probably those left behind by Jebe in the previous summer.[1]

From the above, it is evident that Naysabur, al-Rayy and Hamadhan were key centres which ʿAla' al-Din Muhammad used as safety points. The Mongols left these urban agglomerations alone, if they submitted, except to appoint an agent. It was the simplest kind of administration and a frail symbol of control, particularly once the army moved on. However, Mongol forces were quite active in the countryside, in which no one checked their power; yet they attempted no administration.

The dichotomy of Mongol actions between rural areas and great urban centres is noted by Boyle in the above citation. If, as seems likely, Khwarazmian power and resistance existed in the cities, urban submission combined with the sultan's death was but one goal of Mongol activity. The other was controlling tracts of territory, especially those suitable for herds and hunting. With careful analysis, Boyle continues the itinerary of the Mongols and their leading generals in the west:

> In any case, the generals' main attention must have been attracted in another direction, for it was from this base [Arran] that they launched their first attack on the Georgians, on whom they inflicted a crushing defeat in February 1221 [618 H]. In the spring they returned to Hamadan to put down a revolt and then left ʿIraq for Azarbaījan, where they pillaged and slaughtered until the atabeg made his submission. It was about this time, according to Rashid al-Din, that they dispatched a messenger to Chingiz-Khan to the effect that the sultan being now dead they would, in accordance with the khan's *yarligh*, continue their conquests for a year or two before returning to Mongolia by way of the Caucasus. It would seem, indeed, that the pursuit of the sultan had been only the first part of their mission. From Azarbaījan the generals now invaded Georgia for the second time, then passing into Shīrvan forced their way through Darband to descend into the plains of what is now southern Russia. Here they dispersed a coalition of Caucasians and Qipchaqs before advancing westwards into the Crimea to sack the Genoese *entrepot* of Soldaia and defeat a Russian army on the Kalka. Then they turned back, crossing the Volga near the present-day Volgograd and finally joining their master somewhere along the route of his homeward journey after carrying out a reconnaissance raid without parallel in history.[2]

As in the southeast, the Mongols left behind no civic administration. Rather, they created an emptier land and gleaned knowledge of the terrain for establishing future control. Al-Jibal returned to the fold of the sons of ʿAla' al-Din Muhammad; and Arran, Shirvan, Adharbayjan, Gurjistan and the northern steppe lands also reverted to their former rulers.

Jalal al-Din's new empire

Sind and the ʿIraqs

During this period, the Khwarazmshah's son, Jalal al-Din Menguburni, stayed in India almost three years, departing about the same time that Chingiz Khan left the Samarqand area for home. The Mongols had sent several forays into India after Jalal al-Din, but he was remarkably evasive; and the humidity and oppressive heat usually got the better of the Mongols. Marching back and forth across the Salt Range and Lower Sind, Jalal al-Din finally went into Multan, in which he heard that his brother, Ghiyath al-Din, had declared himself in charge of ʿIraq-i ʿAjam.

However, the majority of the local military, displeased with this turn of events since they preferred Jalal al-Din, made every possible entreaty for him to come to their territory.[3]

Nevertheless, it was no wonder that Jalal al-Din had stayed out of ʿIraq-i ʿAjam for three years. When Chingiz Khan and the generals, Jebe and Subedei, were still about, the Mongols considered ʿIraq-i ʿAjam theirs; and its people were hesitant to give succour to a new sultan. Also, Jalal al-Din was experiencing persistent Mongol raids in India that led him to be circumspect about the extensive reach of the Mongol armies. Nevertheless, the eventual departure of Jebe and Subedei left no vestige of Mongol control in ʿIraq-i ʿAjam; so the Khwarazmian phoenix rose again.

It was while being pursued by still another Mongol party in Sind that Jalal al-Din headed west from the seaport of Dabul into the deserts of Baluchistan and Makran.[4] On the border of Kirman, the ruler, who was founding the Qutlugh Khan Dynasty and had been a former official of Jalal al-Din's father, provided him with rest and moral support but did not join his cause. Further along Jalal al-Din's route in Fars, the Salgurid atabag did join him against Ghiyath al-Din. Now with sufficient forces, Jalal al-Din confronted his brother outside al-Rayy. Since most of the latter's officials declared themselves for Jalal al-Din, Ghiyath al-Din bowed to his brother.

As a result, in the winter of 621–2 H/1224–5 AD, Jalal al-Din consolidated most parts of the western portion of the Khwarazmshah's former empire; and the Mongols were nowhere to be seen. Then Jalal al-Din headed towards Baghdad to resume the feud his father had created with the caliph, al-Nasir li-Din Allah. In Muharram of 622 H/ January–February 1225 AD, he invested Shustar in Kuhistan, an outpost of the caliph's, and then took the countryside around Baghdad. From there, he proceeded up the Tigris and negotiated for the peaceful relinquishment of Irbil. Then, apparently still not strong enough to besiege Baghdad successfully and perhaps because of the depletion of the countryside by his troops, who had pillaged and massacred wilfully, he made for a weaker target, the Ildigizid atabag of Adharbayjan. From Irbil he went to Maragha, which was in ruins from the earlier Mongol raids.

Adharbayjan

Prior to Jalal al-Din's arrival in Adharbayjan, the discomfiture and displacement that he had visited upon his brother in al-Rayy had prompted Ghiyath al-Din's maternal uncle and atabag to enter Ildigizid territory. The atabag wanted to use the Ildigizid as an ally against Jalal al-Din; or, more reasonable given the compliant character of the Ildigizid ruler, he acted as an adventurer, seizing what he could. The atabag had crossed Arran and Adharbayjan twice during the time that Jalal al-Din had been involved with Baghdad and Irbil and had pillaged his area as Jalal al-Din had ʿIraq-i ʿArab. At Maragha, Jalal al-Din heard that his brother's atabag was leaving Adharbayjan to seize Hamadhan from him; the caliph had suggested that he would support the atabag if he could wrest it from Jalal al-Din.[5] However, Jalal al-Din surprised the atabag en route, who quickly conceded. Then Jalal al-

Din gathered the large forces into his own army and prepared to attack Tabriz. In the previous year, the new Mongol horde of 621 H had ordered the surrender of all Khwarazmians living in Tabriz. The order was obeyed by the ruler, but the fate of those evicted has been unreported.[6] The injustice was a perfect cause for forceful reprimand, but Jalal al-Din really needed no instigation. Strategically located and the wealthiest city in the region, Tabriz was a natural target.

The city was located about thirty miles east of Lake Urmiya on a river which ran to an isthmus at low water or an island at high water.[7] The river valley was in a wild, mountainous region called the Qarajdagh. Other difficult terrain, the great southern massif of Sahand, filled the area between Tabriz and Maragha, leaving the valley as the only suitable pass from the east, west and north. Also, as the outer spurs of the Sahand afforded only a narrow corridor along the east bank of Lake Urmiya, communication between north and south was forced to pass close to Tabriz.[8]

Immediately upon the swollen approach of Jalal al-Din up this valley, the Ildigizid abandoned Tabriz for Ganja, taking with him a great deal of his treasury.[9] At first Tabriz allowed the army to enter in order to buy provisions; its deportment, however, was not pleasing. The townspeople strongly objected to it, and in response Jalal al-Din besieged the place. After five days of vigorous fighting, the two groups came to terms.[10] Part of the agreement was to allow the Ildigizid's wife, who had remained in the town and negotiated the conditions, to be safely escorted to her territories of Khoy and Nakhchavan. She also proposed that the sultan marry her in return for the capitulation of Tabriz. Jalal al-Din accepted and entered his new city, Tabriz, peacefully on 17 Rajab 622 H.

Within days, Jalal al-Din left Tabriz for a new land to conquer, Gurjistan. In the next month, he succeeded in giving the Georgians a crushing defeat in their western territory and took Dvin. He then proceeded south to Khoy to fulfil the capitulation contract by marrying the Ildigizid's former wife. Soon thereafter, his forces took Ganja; and the Ildigizid withdrew to a castle deeper into his territory. Conflicting reports have him dying either there or in Alinja, south near Julfa and Nakhchavan, in the same year of 622 H.

Jalal al-Din then proceeded once more against the Georgians, advancing again through Dvin. In Rabiʿ I of 623 H/the beginning of March 1226 AD, he invested Tiflis, their capital. Boyle's description of its surrender does not differ much from Juvayni's of Mongol successes:

> The garrison negotiated favourable terms of surrender and were allowed to withdraw unmolested into Western Georgia. It was otherwise with the townspeople. The Christian population, except such as saved their lives by apostasy, were subjected to a general massacre; and all of their churches were razed to the ground.[11]

Thus, after more than a century, Tiflis was returned to the Muslim fold, raising Jalal al-Din's prestige to a greater height than ever. This success eventually led to a request by the Ayyubid ruler of Damascus for his help in a family quarrel to

attack Akhlat.[12] It was this Armenian town which was to cause the downfall of Jalal al-Din in 628 H, not the powerful Bagratid Georgians, the redoubtable caliph al-Nasir li-Din Allah nor the Mongols of Chingiz Khan.

Local dynasties

In his new territory, Jalal al-Din quickly became master of a highly heterogeneous population, just as his father and grandfather had ruled in their lands before him. The area, destabilised due to the demise of the Great Saljuqs, had experienced political fluidity for nearly seventy-five years. The minor dynasties that had arisen from that empire, but only those immediately involved in this history, were the Bagratids, the Armanshahs, the Ahmadilis, the Ildigizids and some lesser powers, such as the Shirvanshahs and the Bishkinids.

Bagratids of Gurjistan

In the previous century, the Georgian Bagratids had started their rise to power, taking Ani and then Dvin from the Armenians. To counter this growth, a joint coalition of Ildigizid, Ahmadili, Rum Saljuq and Armenian forces had invaded Gurjistan in 557 H. However, this reprimand had put but a temporary halt to Georgian expansion since they sporadically continued to raid south, even to Ganja. Moreover, they involved themselves in eastern politics at Darband, in which the Shirvanshah was related to them by marriage.[13] Later in the century, Georgian expansion had given them control from the east at Ardabil to the west at Kars while they acted freely in Malazgird, Akhlat, Arjish and Arzan al-Rum. Finally, they stopped at the boundary of the Sivas line of the Saljuqs of Rum. When the Mongols arrived in 617 H, Gurjistan was receiving tribute from its outposts of Saljuq Arzan al-Rum, Armenian Akhlat as well as Ildigizid Ganja and Nakhchavan.[14]

Gurjistan, a Christian area, had retained contact with Byzantium, particularly the vestigial kingdom of Trebizond on the Black Sea. However, shattered by the Fourth Crusade in 601 H/1204 AD, the Byzantine Empire was weak, forcing the Georgians to come to terms with powers closer to home, namely the Rum Saljuqs. This necessity was brought to the fore particularly when the Mongols raided Adharbayjan, with subsequent loss of life and property. They defeated the Georgians near Tiflis in 617, 618[15] and again in 621 H. Reeling from Mongol incursions, Gurjistan could not withstand Jalal al-Din. In 622 H after securing Tabriz, as noted, he immediately marched north and took Tiflis. Therefore, the Georgians, confronted by both the Mongols and Khwarazmians, were wise and fortunate to form the tightest kind of alliance with the Saljuqs. In 625 H, the Georgian queen, Rusudan, married Majd al-Din Tughril Shah b. Qilij Arslan of Arzan al-Rum, a brother of the Rum Saljuq sultan.[16]

The crossing of lineages created security and heralded a monetary consortium as well as a political one. For a century, Gurjistan had minted only copper, both round flan and irregular ingot-shaped pieces.[17] Now during the second and third

decades of the sixth century hijra, Gurjistan's copper production seems to have been expanded for use in the Saljuq domains as well as in its own. Certainly the converse was true: Saljuq silver circulated widely in Gurjistan and Adharbayjan. Thus, the two coinages seem complimentary in terms of both metal and circulation areas and were probably part of the same monetary system.

The Georgian–Saljuq alliance of 625 appears to have existed until the demise of Jalal al-Din. Only at his death in 628 H did the Georgians announce their separation from Saljuq hegemony. They did so by striking their first silver currency. Although the reform folded after that year, Gurjistan probably retained its independence until 631 H. In that year, the Mongols began their rule of the kingdom until 638 H. Then there was a re-assertion of local control as another marriage renewed the Georgian–Saljuq alliance. This new alliance and the death of Ogedai probably provided enough strength and room for the Georgians to resist the fluctuating Mongol presence for a few more years. As a result, the Mongols left Gurjistan in 638 H and had to retake it in 642 H after their conquest of the Rum Saljuqs.

Armanshahs of Irminiya

The weakest of the principalities of Jalal al-Din's new territory was Irminiya. First, it had lost its northern territory to the Bagratids in the previous century. Then in the east, the Armanshahs had preferred to take the losing cause, ultimately, of the Ahmadilis against the Ildigizids, who both had coveted Adharbayjan. Unfortunately for the Armenians, in 581 H at the death of the ruler, the Ildigizid, Jahan Pahlavan, laid claim to Irminiya because of his marriage to the late ruler's daughter. Although the Ildigizid had to struggle with Salah al-Din, the Ayyubid, whose home territories he threatened, he acquired Akhlat on Lake Van and the surrounding area.[18] Thus, squeezed between the southern Ayyubids, the eastern Ildigizids and the northern Bagratids, Greater Irminiya lost its political existence.

Ahmadilis of Urmiya

The dynasty of the Ahmadilis was founded in 510 H by Ahmadili b. Ibrahim, a Turkish slave of the Tabrizi Rawwadid family. For over a century, the dynasty had jostled with the Ildigizids in Adharbayjan, losing Tabriz to them in 570 H. In 602 H, the Ahmadilis also lost their new capital, Maragha; but the Ildigizids allowed them to retain Urmiya and Ishnū, which effectively moved them westwards to the other side of Lake Urmiya. Three years later in 605 H, on the death of the Ahmadili infant heir, the Ildigizids acquired practically all the remaining territory. In approximately another fifteen years, the weakened dynasty was subsumed under the power of Jalal al-Din. Although remnants of the line were heard of after both Khwarazmians and Mongols had flooded over the area, their political power for the rest of the century seemed to have been limited.[19]

Ildigizids of Adharbayjan

The Ildigizids rose to power as one of the supporters of rival princes at the dissolution of the Great Saljuq state. The dynasty's founder, Shams al-Din Ildigiz (d. 570 or 571 H), originally a slave of the wazir of Sultan Mahmud, later became part of Sultan Mas'ud's retinue and was appointed governor of Arran. For four years at least, the dates 546–9 H are reported, Shams al-Din minted base silver coins, which were poorly struck on irregular flans. He named his Great Saljuq overlords, Mas'ud b. Muhammad, Malik Shah b. Mahmud and Muhammad b. Mahmud, on the coins, which he minted at Urmiya and Salmas. Unfortunately, the description of these rare coins in the two hoards known did not give weights or types. Given the irregular and low quality fabric of the coins, they may not have been struck to fit a weight standard.[20]

Shams al-Din was fortunate to marry into the royal family by acquiring Sultan Tughril's widow as his wife and her son as his stepchild. The stepson he placed on the western Saljuq throne at Hamadhan. Ildigiz's own son by his new wife inherited the power behind the throne, i.e. the territories of Arran, most of Adharbayjan and al-Jibal containing Isfahan and al-Rayy. A younger brother later sat in Tabriz as a subordinate ruler.[21] Ildigizid control always emanated from Adharbayjan and Arran.

Although Shams al-Din had minted silver as a governor of the Great Saljuqs, he did not do so as an independent ruler because minting silver was the prerogative of the Rum Saljuqs and their southern neighbour, the Ayyubids. That right stemmed from being direct successor states to the Great Saljuqs. This transfer of legitimacy can be followed particularly with Salah al-Din, who conquered Egypt and Syria in 564 H. When his overlord, Nur al-Din Zangi of al-Mawsil, the protector of the Great Saljuqs of 'Iraq-i 'Arab and the Jazira, had died in 569 H, the Ayyubid state emerged. Two years later, in 571 H, Shams al-Din Ildigiz died, at which time presumably his role as defender of the northern portion of the Great Saljuqs came to an end as well. It was at this point, in 571 H, that the death knell of the Great Saljuq state was sounded by the first striking of silver in Ayyubid[22] and Rum Saljuq domains and by independent copper money in Ildigizid territory.

Ildigizid coinage generally did not state a mint but, when it did, cited Ardabil.[23] As the capital and most thriving city of the realm, Ardabil was the main mint although minor ones also may have existed. The Ildigizids also did not put the date or the Islamic profession of faith on their coins, only the name of God's shadow on earth, the current caliph, and the ruler's name. These practices were analogous to many eastern Turkish traditions, especially Ghurid billon. Moreover, Ildigizid obverses often included *tamghas*, especially the trident and bow. The last coin with a bow was issued from Ardabil, but with no date, by the greatest of the rulers, Jahan Pahlavan (571–607 H).[24]

It is noteworthy that since there was no mention of religion, Ildigizid money did not adhere to an Islamic pattern. This curious behaviour might be attributed to the fact that the coinage was copper, not silver, which by tradition did not have to follow

the norms of gold and silver. Therefore, although the Ildigizids did mint some gold, which followed Islamic practice,[25] their normal coinage was unconventional. Not only was it based on copper but it also had both regular and irregular flans and uncontrolled weight.[26] Thus, the Ildigizids combined Turkish-inspired legends with the shape and metal of their powerful neighbours, the Bagratids.[27] Commercially, both Ildigizids and Bagratids relied on Rum Saljuq silver. In spite of that probability, it is politically significant that these independent dynasties issued no silver.

The lack of silver coinage was due to the fact that in spite of their political bid, the Ildigizids did not carry the monetary mantle of the Great Saljuqs. It was the Ayyubids and Rum Saljuqs who issued the standard metal of the Saljuq Empire, silver. Rather, the Ildigizids joined the other rulers in the corridor from Gurjistan to the Jazira by producing copper and some gold, but no silver. The corridor issued sometimes beautiful copper coinages not only because of its Byzantine monetary and cultural heritage and the discovery of new copper mines[28] but mainly because of this political factor.

This factor explicitly reflected the legitimacy of an Islamic dynasty in its coinage: not only the inscription but also the metal made a political statement. A dynasty's centre or large regional mints were usually responsible for the imperial type, which dealt with the major parts of the field on the coin, and for the production of the metals of gold and silver. Therefore, copper was considered a local emission which, although often controlled by the same officials, had its own types and weights. By striking copper, these descendants of the Great Saljuq Empire seem to have stated that they were still subservient to its august aura. Such actions would have followed the theory of the state in Turkish culture. Apparently, the ethos of steppe confederations continued to operate.

Further evidence of the enormous Great Saljuq shadow appeared even on the Mongol coinage of al-Mawsil from 671–81 H, on which Saljuq titles were incorporated. Indeed, this sense of non-Arab and non-indigenous imperialism did not die of itself. Although the Saljuq mystique was equally as grand and universal as the Mongol one, the ghost was Turkish. Therefore, eventually the Mongols had to finally confront and exorcise it before they could include the Jazira within a single Mongol currency.

In contrast to the Ildigizids, the massive production of silver by the Ayyubids and Rum Saljuqs at this time is most noteworthy since it came after a long hiatus, often called "the Silver Famine" in numismatics.[29] The fact that the Ildigizids did not take part in minting silver probably sheds light on both their power and image of themselves rather than being due to a lack of metal. In addition, their use of copper currency contrasts sharply with the imminent and enormous monometallic silver system of the Mongols, who saw no Great Saljuq shade.

The Ildigizids became subordinate to outsiders, the Mongols and Jalal al-Din, starting in 617 H. Ildigiz's grandson, Muzaffar al-Din Uzbag (607–22 H), encountered the Mongols first at the time they sacked the prosperous[30] capital Ardabil. The attack apparently caused Uzbag to flee to Tabriz, in which, learning from experience, he ransomed the city. However, the Mongols came again the

next year. This time Uzbag fled elsewhere, but the wazir bought them off again. Uzbag then returned to Tabriz.[31]

As already noted, in 621 H, a new horde arrived, which ordered the surrender of all the Khwarazmians living in Tabriz; and Uzbag complied. Unfortunately, next year it was Jalal al-Din's turn to arrive from Maragha. Uzbag flew from Tabriz before the new army; and, on 17 Rajab 622 H, Jalal al-Din gained admittance to the town, as already noted. When later in the year Uzbag died, the effective independent ruling power of the Ildigizid atabags ended.[32] It was probably at this point, during which Ardabil was no longer the capital, Jalal al-Din was in residence at Tabriz and Uzbag had removed the wealth of Tabriz, that the vassals under Uzbag, that is the Bishkinids of Ahar and an unidentified ruler in Mughan, began to strike their own copper coins.[33] After Jalal al-Din's death, however, the Mongols retained Uzbag's son, Khamush, and grandson, Nusrat al-Din, as local overlords.

Demise of Jalal al-Din

In 627 H after losing the Battle of Akhlat, Jalal al-Din's position became weak; and, in the following year, he left Adharbayjan with only a small following. Later in 628 H, after being refused admittance to Amid, he was killed by Kurds as they robbed his party in the Hazro Hills within sight of Mayafarraqin. No one knew where he had gone; but after a few months, Tabriz made peace with the Mongols, who levied tribute and cloth for the royal court. They placed Uzbag's son, Khamush, as ruler, who received an appointment letter and a symbol of his authority from the Mongols.[34]

In spite of his six-year stay in Irminiya, Gurjistan and Adharbayjan, Jalal al-Din issued few coins in the west.[35] He seems to have been a remarkable military strategist but lacked equally compelling administrative skills. He had the ability and the means to confront the Mongols, who, however, had no wish to test him; it was, in fact, Jalal al-Din who kept them out of Iran.[36] As the most eminent individual protagonist of the Mongols, Jalal al-Din enjoyed a charismatic political loyalty, which the Mongols could not eliminate. In all the Islamic lands, the battle against the Turkish Khwarazmian heritage was the chief struggle of the early Mongols. For a generation, the legitimacy of that ephemeral dynasty was a major cause of Mongol inability to rule the Islamic lands south of the Amu Darya.

Immediately upon Jalal al-Din's death, the western territories of the Khwaazmshah were not consumed by the Mongols. In contrast, throughout the area, there was great ferment. The first cause was that the feared sultan had gone, who had been more persistently devastating than the Mongols had been. Second, after a foray through Diyarbakir, the Jazira, Irbil and Akhlat[37] without meeting any resistance, the Mongols returned north, leaving the old political patterns to re-emerge although with a slight change of emphasis.

One of these patterns focused on Mardin. Earlier, from 624–6 H under the aegis and in the style of the Rum Saljuqs, the Artuqids had issued silver at Dunaysir, their emporium on the plain within sight of the Mardin citadel. However, the defeat of Jalal al-Din's coalition at Akhlat shifted alliances. Starting possibly in

627 H and going to 631 H, hegemony moved to the indigenous Ayyubids. As a result, the Artuqids issued their new post-Khwarazmian silver with the Ayyubid Aleppo design of a hexagon on both sides. Whether the style was Saljuqid or Ayyubid, Mardin struck coinage at the local and significant weight of 2.83 grams.

Another sign of life returning to pre-Khwarazmian patterns in the west was the re-emergence of a strong Gurjistan. Having gained new resilience from its ten years of struggle, it evinced great confidence as its ruler, Queen Rusudan, issued the first Georgian silver coinage in 628 H/1230 AD at the weight of 2.61 grams.[38]

The independent and aggressive monetary activity at the western fringe of the Mongol domain suggests that the dynasties involved were not only without fear of the Mongols but were also declaring financial distinction from the weakened Rum Saljuqs. It was confidence well-founded because both Mardin and Tiflis were to remain as independent as possible throughout Mongol domination. Even when they appeared behind the cloak of Mongol suzerainty, they still controlled their own monetary affairs more substantially than any other Mongol mint.

In conclusion, Jalal al-Din is best appreciated as a means of focusing on the shifting events of the petty dynasties of Greater Iran. The lack of cohesion meant an open invitation for the Mongols. However, first they needed to develop their own effective administration.

Notes

1 Boyle, "Il-Khans", 310–11.
2 *Ibid.*, 311. The sources are sketchy and sometimes contradictory. Boyle's analysis of the military events required extensive analysis and is the most reliable.
3 *Ibid.*, 323.
4 *Ibid.*, 322–6, for Jalal al-Din's itinerary from Makran to his arrival in Tabriz.
5 'Izz al-Dīn ibn al-Athīr, *al-Kāmil fī al-Tarīkh*, Vol. 12 (Leiden, 1853; reprint, Beirut, 1966), 432.
6 "Tabriz", *Encyclopaedia of Islam*, first edition (London).
7 Hulagu kept his spoils from Baghdad on this promontory, called Shāha Island, and was buried there; Guy Le Strange, *Lands of the Eastern Caliphate* (Cambridge, 1930), 161.
8 "Tabriz". The encyclopaedia continues that Tabriz is "in general one of the most important cities between Constantinople and India, comparable to Tiflis, Teheran, Isfahan and Baghdad". This is a grand statement which predestines Tabriz to a crucial role. However, this was not the case since the author does not take into account Ardabil's equally favoured situation further east, reflected in the fact that both the Ildigizids and later the Safavids made Ardabil their capital. Further, the Mongols, themselves, did not initially prefer Tabriz.
9 Ibn al-Athīr, 434. The term *Ḳushk* is rendered in the Arabic text, but since *Ganja* had various spellings, particularly with an added *kāf* at the end, it seems probable that the *shīn* could have developed into or devolved from *jīm*, allowing *Kushk* to be a variant pronunciation of *Ganjak/Ganja*.
10 *Ibid.*, 433.
11 Boyle, "Il-Khans", 328.
12 *Ibid.*
13 Bosworth, "Political and Dynastic History", 178–9.
14 *Ibid.*, 179.

15 Juvaini, 149, ft. 32.
16 Henry H. Howorth, *History of the Mongols: from the Ninth to the Nineteenth Century*, Part III, *The Mongols of Persia* (London, 1888; reprint, New York, 1965), 23.
17 Both David M. Lang, *Studies in the Numismatic History of Georgia in Transcaucasia*, Numismatic Notes and Monographs No. 130 (New York, 1955) as well as E. A. Pakhamov, *Moneti Gruzhia* (Tiflis [Tiblish], 1970), trans. M. Bartlett Wells as *The Coins of Georgia*, typescript in the British Museum, have several chapters each on this subject.
18 "Arman Shah", *Encyclopaedia of Islam*, second edition (London).
19 Bosworth, "Political and Dynastic History", 171; "Maragha", *Encyclopaedia of Islam*, first edition (London) by V. Minorsky; "Ahmadili", *Encyclopaedia of Islam*, second edition (Leiden).
20 Alexander H. Morton and Stephen Album, *Coin Hoards*, Vol. 3, (1977), Nos. 269 and 270, 101. The hoards appeared in the market in 1975 and 1976.
21 Bosworth, "Political and Dynastic History", 170.
22 Paul Balog, *The Coinage of the Ayyubids*, Royal Numismatic Society Special Publication, No. 12 (London, 1980); there is a debate over the existence of the 571 H issue. Otherwise, the coinage started in 573 H, for which date there are several reports.
23 Dikran Koumjian, "A Numismatic History of Southwestern Caucasia and Adharbayjan Based on the Islamic Coinage of the 5th/11th to the 7th/13th Century", PhD diss., Columbia University (New York, 1969), 126.
24 *Ibid.*, 327.
25 Dikran Koumjian, "Three unique gold coins of the Eldigizid Atabags of Northwestern Iran", *Actes du 8ème Congrès International de Numismatique*, New York/Washington, September 1973 (Paris/Basle 1976), 357.
26 Koumjian, "Numismatic History", 126.
27 Pakhamov and Lang have complete chapters for the early period.
28 Nicholas M. Lowick, "The Religious, the Royal and the Popular in the Figural Coinage of the Jazira", *The Art of Syria and The Jazira*, ed. Julian Raby, Oxford Studies in Islamic Art I (Oxford, 1985), 159–74; 169, on the new copper mine, probably just north of Mayafarraqin.
29 Andrew Watson, "Back to Gold and Silver", *The Economic History Review*, second series 10 (1967), 1–34.
30 Le Strange, 168.
31 Juvaini, 147–8; and *Encyclopaedia of Islam*, "Tabriz".
32 Koumjian, "Numismatic History", 363.
33 *Ibid.*, 357, for identifying the vassal coinage but not the cause.
34 Juvaini, 148, n: "the son of the *atabeg* and a deaf-mute – hence his name *Khāmūsh* in Persian meaning 'silent'. See Nasawi, trans. Houdas, 215–16. Nasawi says not a word of his submission to the Mongols; according to Rashid al-Din (Smirnova, 227), it was Oz-Beg himself who bought them off". Boyle's comments reflect the general chronological confusion about early Mongol activity in Adharbayjan.
35 To date, only coinage is known announcing his great achievement for Islam. Jalal al-Din issued irregular copper in Tiflis in 623 H; Lang, 28.
36 Jalal al-Din is reported to have stated, "if I am removed … you cannot resist them. I am to you as the Wall of Alexander"; Juvaini, 452.
37 Ibn al-Athir, 499–502.
38 Pakhamov, 2.63 grams. My calculations from the collections of the British Museum and the American Numismatic Society coins give 2.61 grams.

4

KIRGIZ

Stabilizing the empire in the west

Accession of Ogedai

The year 628 H exposed the weakness of Mongol administration. West of the Amu Darya control consisted only of the threat of marauding groups rather than any normal political organisation. Moreover, government in the region was principally focused on an individual personality rather than on communities. As a result, the death of the last Khwarazmshah allowed his new territories to relapse into the same conditions that had existed before his arrival. Regional leaders took cognisance of his absence instead of the presence of diverse Mongol raiding parties. Perhaps the best indication of the fluid situation was that the Mongols allowed Tabriz, Jalal al-Din's capital, to return to its former rulers. There were two reasons for the local, basically non-Mongol, turn of events. The first was central Mongol policy, and the second was the semi-independent prerogatives assumed by the Mongol generals.

Foremost, central Mongol policy could no longer be driven by the energy and charisma of Chingiz Khan. Although it retained his legacy, in particular the political patterns he had formed and the ideals he had cherished, it now needed time for readjustment and consolidation. Ogedai[1] was Chingiz Khan's heir apparent; yet he was not inaugurated until 626 H, almost two years after his father's death. The reason for the delay was that the throne could be assumed officially only at the time all the important princes and generals from the entire realm had come together. Everything stopped until the full agreement of the clans was demonstrated in an assembly. There, policy was thrashed out in long days of discussion, by which the new khan received both advice and gauged the temperament of his people. At this assembly, the strongest sentiment confirmed that Chingiz Khan had instilled the Mongols with enough conviction and confidence to follow his aims, even without him. At the *quriltai* or meeting, therefore, Ogedai reappointed the regional governors and ordered a renewal of military activity.[2] In both civil and military affairs, he was a strong and wise successor to his father; but he was also an innovator.

At first, his changes were logical developments of practices started by Chingiz Khan. The founder had given some areas as fiefs to groups that then had the right to them in perpetuity. For example, Chingiz Khan's granddaughter, Orqina, had a large grazing area near Almaligh.[3] Ogedai enlarged the system of grants to northern

China, in which he divided the vast expanse into regions supervised by the princes. Although this complied with nomadic practice, it was an unwise policy if he wanted to keep the empire together; nor was it a particularly good method for ruling sedentary peoples. Ogedai's minister, Yeh-lü Ch'u-ts'ai, the sinicized Khitan, had a venerable record from serving Chingiz Khan. However, even he could only partially convince Ogedai that this decision had flaws. He did persuade him, however, to send his own imperial officials to collect the revenue on behalf of the princes; and, further, that the princes could not directly levy any tax on the population.[4] This restriction meant that, in effect, the minister gave northern China the status of an imperial province.[5] As a result in 626 H, Ogedai established two Branch Secretaries: one was for the east or China, which eventually came into effect in 629 H/1231 AD.[6] The other dealt with the west in Turkestan; that is, in the province of Ma wara an-Nahr or Samarqand, which spread from the land of the Tangut to the Aral Sea. Therefore, the first province was northern China; and the second was Turkestan. In both cases, civilian and bureaucratic control was paramount over military and tribal affiliations. In particular, the central khan appointed the officials, usually two, and each reported to the other. Further, the top offices held representatives from each section of the royal family, who maintained the interests and prerogatives of their clans. The administration had a remarkable system of checks-and-balances, which could either prevent implementation of controversial policies or conversely provide a consensus for initiating radical programmes and effectively executing them over the entire vast empire. Although the structure allowed continuation, it seems that at the imperial *quriltai* of 626 H Ogedai did not endorse one practice his father had initiated, that of coinage. It had been a regional programme anyway, a good part of it in territory now abandoned. The halt in monetary production was probably not an oversight since the next *quriltai* specifically addressed it. Therefore, in the first period of Ogedai's rule, he aimed to stabilize the centre and assure harmony within the royal house.[7] In other words, he focused attention at home.

The second reason for the lack of Mongol control in the west was basic to the nature of the expansion. The work of the generals had not been followed by a political structure. The generals had been the first wave and were often so successful and moved so fast that it had been difficult to establish a bureaucracy in their wake. Normally, there was little more than a local person responsible for supplying the Mongols in the field with food and various simple luxuries. The effect of this policy made the generals responsible for whatever passed for civilian administration. Nevertheless, since the policy dealt only with matters affecting the military, it was minimal. Effective civilian administration was quite a different task, simply incompatible with their style of warfare or even daily nomadic life.

Furthermore, as khan, Ogedai did not plan military campaigns on the massive scale of his father. Instead, as part of the consolidation programme, one of his first moves was to send different generals in different directions to reinforce control in loosely held territory. This was necessary because the first forces had previously passed through them almost as raiding parties rather than as conquering armies.

He targeted three of the original areas, Zabulistan, Sistan and Hungary. However, the new campaigns were similar to the first wave ten years earlier, which had chased ʿAla' al-Din Muhammad and Jalal al-Din. Only the most minimal and spotty administration had been established then, and the regions had soon slipped out of Mongol control again after 628 H. Therefore, even if the new campaigns were successful, without a serious and concerted effort to govern these areas, they would never become part of the empire. Effective control could not be accomplished without a strong civilian governor, but this was not part of the vision.

Chin Temur, 616–33 H

The lands immediately west of the Amu Darya had almost shared the same fate as the other three regions. At this time, it was also subject to raiding forays and patrols but not to the law of the conqueror. It would have needed retaking, like Sistan, except for the actions of one person, Chin Temur. He took matters into his own hands and practically forced Ogedai to create another province. It became the third imperial region, following northern China and Turkestan.

Biography of Chin Temur (d. 633 H)

Chin Temur[8] began his career with the Mongols under Jochi. He was already a diplomat for them at the time he was first reported in the sources. In 616 H/1219–20 AD, he was negotiating the capture of Jand, which lies on the right bank of the Syr Darya.[9] Jochi then appointed him *basqaq* or governor of Gurganj. As one of Jochi's chief officials, Chin Temur soon extended his power from Bulghar on the bend of the Volga River through western Khwarazm to the border regions of Khurasan and Mazandaran. He may or may not have been a Mongol, but he was steeped in Qara Khitan culture.[10] Ogedai reconfirmed him in office in 626 H, but soon the khan enlarged his responsibilities.

Campaign in the west

The change occurred because of the renewed military activity against the west. It was in motion by 627 H as the general, Chormaghun, crossed the Amu Darya. His main goal was probably to find Jalal al-Din since he seems to have moved extremely speedily through Khurasan and al-Jibal.[11] When Ogedai empowered Chormaghun to retake the west, he also ordered all civilian governors to render the general every aid and obedience. In compliance, Chin Temur travelled from Gurganj through Shahristana[12] to catch up with the general and "called upon all the territories that lay across his path to submit".[13] Moreover, Chin Temur was ordered by Ogedai to assist Chormaghun by subduing Khurasan. This was not an easy task, one that had eluded Tolui earlier. He led the army of Khwarazm, which probably consisted mostly of pagan Turks; but he had little local assistance. One reason for lack of support was that he was attacking another Muslim country while the second and

decidedly the most important fact was that success was not assured. Finally, the malik of Khwarazm ordered Sharaf al-Din to accompany him. The subordinate quickly learned basic Turkish because Chin Temur had no other interpreter.[14] By the time Chin Temur reached Khurasan, probably in 627 H, Chormaghun had already passed through and left it in great confusion. Some places had Mongol agents, but many did not.

Soon Chin Temur appointed more agents and further expanded his supervision, going far beyond his limited instructions to follow the trail of the great general. Instead, he intended to keep the area pacified; so he put Sharaf al-Din in charge of administrative details. The official not only kept records but was also in charge of all the taxes.[15] "For at first the Mongols paid no attention to gold and jewels, but when Chin Temur was established in office, this noble,[16] in order to make a show of efficiency, rendered money sweet in their hearts ... and wherever he came ..., submitted ...".[17] Chin Temur had chosen his chief administrator well.

In the process of controlling the area, Chin Temur met an immediate challenge. Two of Jalal al-Din's generals were making regular sorties into Naysabur and the countryside around it, turning the region into an active resistance zone. In fact, since "men's minds were still exercised by reports about the Sultan, there was no peace in that region".[18] Therefore, Chin Temur felt forced to send a general from his own forces to subdue it. Hearing of the Mongol advance, a number of local notables left for Tus. The Mongol general routed the loyalists of Jalal al-Din and then ordered the amir of Tus to release the refugees to him. No one had much hope for them, least of all the governor of Tus; but he seems to have given them up willingly, apparently out of evil intent. However, Chin Temur honoured the refugees instead and, by such diplomacy, formed a community that co-operated willingly with the Mongols throughout the rest of their rule in Iran. Meeting this challenge so successfully meant that the Mongols had conquered Naysabur from Jalal al-Din and did not govern it through a local ruler. It thus became a royal or imperial Mongol centre and eventually developed into the administrative capital of eastern Iran. Near the end of the century, its policies and officials even dominated the court at Tabriz.

Because of Chin Temur's success in establishing allegiance to the Mongols, Chormaghun and another general, who was besieging Sistan, soon ordered him to leave Khurasan. They concluded that, since Khurasan was now a safe area, it would be governed by the Sistan general.[19] Therefore, Chin Temur was to help Chormaghun in the far west, in which the original purpose had changed. Unfortunately, Chormaghun had arrived there after the Battle of Akhlat, which had broken Jalal al-Din's alliance. As a result, the general did not have a foe to fight and had reacted in a rather aimless fashion. A near contemporary noted how the Mongols had pillaged and massacred consistently without any necessity or opposition.[20] The situation remained thus until Chormaghun devised a different strategy which lasted for two years from 630 through 631 H. Presumably, Chormaghun needed Chin Temur for this new campaign.

In the first part of the campaign, he laid waste to Ganja,[21] which signalled the full and final occupation of Adharbayjan and Arran by the Mongols. Therefore:

> when the wise princes of Armenia and Georgia realised that God was giving power and victory to them (the Tat'ars) ... [they] agreed to give the tribute known as mal and t'agar and to come out to them with their cavalry wherever they (the Tat'ars) led them.[22]

Then the Mongols tried to expand south of Adharbayjan into 'Abbasid territory, notwithstanding the difficulties provided by the Zagros Mountains. However, Muzzafar al-Din of Irbil received aid from al-Mawsil; and the Mongols retreated in 631 H,[23] putting an end to this second and ineffective campaign.

The new potency of the Mongols, however, was not lost on their neighbours, the Bagratids and Artuqids. Although still at some mercy from their more powerful western neighbours, the Ayyubids and Saljuqs, the Bagratids and Artuqids now had to take cognisance of an eastern front as well. Like hunted animals, stillness was their best defence: they stopped producing money, thereby declaring neither a suzerain nor even their own existence. Their caution was well advised because the final statement of firmer Mongol presence came soon in 632 H. Batu, the son of Jochi, took up residence in Bulghar on the Volga River,[24] to date the most western residence of a prince of the royal blood.

The third imperial province

Although Chormaghun had somewhat regained his purpose, Chin Temur had earlier refused to relinquish Khurasan and join him. The matter became a major court battle, which was referred to Ogedai, himself, at Qara Qorum. Chin Temur defended his actions on the ground that, while the generals were fighting, he had been strengthening Mongol control. Because of his actions, various unaligned places had come over to them. In particular, when the ruler of Isfara'in, the most important Khurasanian malik, had stepped forward, the remaining holdouts had followed. They included, notably, the leader of Mazandaran, residing in Khabudjama.[25] Both were escorted in 630 H, according to their submission requests, to Ogedai himself:

> Since these two were the first to present themselves from the lands to the west of Transoxiana, Qa'an was greatly delighted. ... And on this account he distinguished Chin-Temur and Kul-Bolat [his general] with all manner of favours ... [saying] though his territory be of small extent and his resources few, ... we approve of him and have placed the governorship of Khorasan and Mazandaran firmly in his hands.[26]

By the presentation of these two regional leaders, Chin Temur won his case and even gained promotion. No longer a holdover Jochid official, he now became an independent governor appointed by the central government. In effect, he created the third imperial province.

The Isfara'in malik was made the sub-governor of Khurasan, which consisted of Isfara'in, Jajarm, their neighbourhoods and the plain of Juvayn. The Khabudjama

leader was also retained and made the sub-governor of Mazandaran, which stretched from his residence to beyond Astarabad.[27] The region of Naysabur, which had been conquered earlier by the military, came under the direct supervision of the Mongol diwan.[28]

During Chin Temur's return journey from Ogedai to his new province in 630 H, he planned the formation of his government and began to make appointments. The father of the historian, 'Ata' Malik Juvayni, a Naysaburi, became his chief minister or sahib-diwan and Sharaf al-Din his wazir. Following the Mongol custom of having a representative of each main branch of the royal line at every court, Sharaf al-Din was also the delegate of Batu.[29] Therefore, even though the territory was separated from princely control, from the start, the Jochids had a major role in the daily administration of the new province. However, the reverse also occurred. Presumably, by having Sharaf al-Din accompany him to Khurasan, Chin Temur still retained control of Gurganj. The two personalities reflected an intricate and evolving political reality.

To qualify for its new position, the territory had to pay imperial dues; and to facilitate their collection, Chin Temur had to mint money. In order to do that, he first went to Samarqand, in which he struck coinage, picked up the former craftsmen and dies and then headed towards his new territory. One of the favours, unspecified in Juvayni's report, that Ogedai had bestowed on him seems to have been the authority to produce money in both the second and third imperial provinces. Although A-hai's son and Yalavach were still governors in the second province, they had not struck coinage recently; in fact, they do not seem to have collected regular monetary taxes in the second province since Chingiz Khan's death. Two reasons for this immediately suggest themselves. One is that control had been extremely weak, requiring the province's administrative centre to move eastwards to Khojanda closer to the Mongol heartland. Another cause was that taxation policies were probably not clear. It was not known how much the conquered population was to provide as yearly tribute, nor what was due from Mongol groups living in the area. There had not been a census, any system of determining wealth nor even a standard of metal by which to calculate taxes. The Khitans were used to copper or billon, the Khwarazmians to gold and the nomads to bars of silver. Chin Temur's actions could not settle the basic problem, but he needed immediate funds to start his administration. Apparently, levying monetary tribute was his best recourse.

First sign of civilian rule: the Shahada *coinage, 630–1 H*

In 630 and 631 H, the regions of Samarqand, Bukhara, Khojanda, Khurasan and Mazandaran issued gold coinages, which contained large portions of silver. Two series emerged, one for the original territory and a derivative type for the new one. They had the traditional Islamic profession of faith in a new obverse design. Unexpectedly, however, they started with a reverse that used a former Samarqandi obverse die from 620 H,[30] which therefore produced the same religious statement

on both sides. This curious repetition provides the group with the title of the *Shahada* coinage.

Obviously, Chin Temur was being expedient by using old dies lying in storage. This was only the first instance, however, of a practice that continued even into the next century. Throughout Greater Iran, Mongols sometimes ignored normal theories in their rush to collect revenue and implemented decisions almost instantly without due regard for much of the supporting network. In this instance, the inscription meant nothing in traditional terms, for Chin Temur, his chief administrator, Kirgiz,[31] and the imperial khan were not Muslim. However, the finance minister, Sharaf al-Din was; and he felt confident in ordering this strange issue. The type combined the essential design elements of both Islamic and the last Chingizid money.

Chin Temur issued his first coinage in the second province in Samarqand. There, the obverse had the long *shahada* with *waḥdahu, lā sharīk lahu* while the reverse had the short one. The one coin known has been pared, or the die was too large for the flan, so that the marginal inscription is off the flan. The mint, *Samarqānd*, was written at the bottom of the obverse; but there was no date in the field.[32] From that city, Chin Temur moved west to Bukhara, which produced two issues: the first was the same type as Samarqand with only a change of the mint name.[33] The second had the mint at the top of the obverse and switched the short Samarqandi reverse back to the obverse,[34] in other words, going right back to the gold of 620 H. As a result, for this second Bukharan issue both sides were exactly the same, which allowed no distinction at all between an obverse or reverse: one side was an absolutely faithful replica of the other. As such, this gold type was in the direct tradition of the Samarqandi billon of 622 H, in which the same inscription appeared on both sides. The only stylistic variation of this *Shahada* series was that each mint name had its own particular location, as detailed in the following discussion.

The diwan then took hubs east to Khojanda to produce an electrum issue there. The obverse used the second type of Bukhara, which had engraved on it the new mint at the top and perhaps at the bottom (off the flan). For the reverse, the diwan used an old *Khānī* die that had *Khānī* followed by *al-Nāṣir li-Dīn Allāh* with the mint, *Khojanda*, on the bottom of the field.[35] The switch in direction from west to east may indicate that Yalavach had already moved from Samarqand to Khojanda, in which Chin Temur probably deposited the taxes from the second province with the governor. Since all these issues were in pale gold, in accordance with Yalavach's previous practice, taxation most likely consisted of tribute from the subjugated population.

After submitting his payment for independence to the governor, Chin Temur and his diwan retraced their steps and traversed the great distance to Naysabur, the enclave of exclusively Mongol power and seat of his new province. He began to mint there as well and followed the same practice and style of coinage from the last Bukharan issue with the short *shahada* on both sides. Again, only the placement of the mint name changed, and it was repeated on all sides.[36] There was but one issue of pale gold, which probably constituted a heavy contribution as conquest

money or thanksgiving, in the quaint terms of Bukhara's initial submission. This was the first Mongol money issued in Naysabur, which established it as the initial administrative centre of eastern Iran.[37]

Once settled in the provincial capital, Chin Temur started to develop a taxation structure based on tribute for his entire new region. Moreover, he needed to tour the province in order to establish the new terms and form of government. Since the diwan was now in territory ruled by indigenous regional governors, he authorized Sharaf al-Din to modify the type, thereby complying better with Islamic tradition. The new coinage from Khurasan formed the second part of the *Shahada* series. However, the two officials were less interested in the details of the inscription, which varied, than in the value of the metal, insisting on gold, no matter how pale. From the evidence of the inscriptions, the diwan was well-staffed and active. First, Sharaf al-Din seems to have assigned sub-agents to Isfara'in and Marw while the main section of the diwan headed for neighbouring Tus. As a result, one agent travelled northwest to Isfara'in, at which he retained the short *shahada* on the obverse only and finally had a statement about the ruler as *Qā'ān/al-ʿĀdil/al-Āʿẓam* on the reverse. The coin did not have a striking formula, however, placing only the mint name vertically on the left edge of the reverse and perhaps at the bottom of the obverse (worn).[38] The agent made another adjustment by using a smaller flan, in keeping with the normal size for the area rather than retaining the broad and very thin pieces styled after Samarqand. Like issues in the previous series, Isfara'in's tribute coinage was pale gold, heavily mixed with silver.

Meanwhile, a different agent left for Marw, which also had an electrum issue. The obverse held an arabesque at the top and continued to proclaim the short *shahada*. In this case, there was a margin, which presumably had the minting formula; but it is too worn to read. The reverse had *Āllāh* at the top flanked by a star on each side; and, below it, the field stated *al-Mulk li-llāh/Qā'ān al-ʿĀdil/Marw*.[39] Both Isfara'in and Marw acknowledged the qa'an but not with the same words. Moreover, Marw reserved the ultimate authority to God. Sharaf al-Din provided neither die nor written model to the agent, who seemed to have worked on a verbal understanding of the necessary points to cover.

The main part of the diwan went to Tus, which also issued electrum. It becomes evident at Tus that Sharaf al-Din was now relying heavily on local experts to make the dies rather than any longer employing hubs from previous stock. For example, the margins at Tus become more complicated, sometimes with two legends, most of which are off the flan of extant specimens. The obverse had a square inside a circle and used the short *shahada*, placing *Ṭūs* in each of the four sections outside the square. The reverse field, also inside a square, Arabized the ruler to *al-Qā'ān al-ʿĀdil al-Āʿẓam*.[40] Since the legends matched closely those of Isfara'in, they probably followed the same directive at about the same time.

The diwan proceeded further west to the province of Mazandaran and Dhihistan; first, Sharaf al-Din minted in the region, namely Balad Dhihistan, en route to the capital. The issue continued the Arabized spelling of the reverse from Tus. It also added the mint at the top and repeated it in the circular margin. On the obverse,

this type dropped the inside square but maintained the short profession of faith. The margin perhaps contained the date, but the imprint is too poor on all four known specimens to verify the date.[41]

Sharaf al-Din probably picked up an imaginative and skilled engraver in Tus because a specific calligraphic detail links the Tus type to the subsequent ones from Balad Dhihistan and then Astarabad. This feature was the *ʿayn* of *al-ʿādil*, which resembled two curved horns pointing outward that were attached to a raised platform used for the base line. This feature was both distinctive and odd. It was accompanied by other various and curious forms for the *ʿayn* on the next coinage, so the engraver was not the only one producing dies. Meanwhile, during the time the Tus calligrapher was in the Dhihistani region, he changed the reverse from *al-qā'ān* to read *al-khāqān*. This wording continued through the Astarabad issues.

The diwan then quickly established itself in Astarabad, not at the malik's seat of Khabudjama. Astarabad had a long minting history as the traditional financial or commercial centre of the dynasty. Its importance is attested by the largest production of the entire *Shahada* series, which consisted of two groups, both poorly and, therefore, probably hastily stamped. At first, the mint kept the obverse legend with the normal short inscription. It added a sura in the margin and the date vertically on the left and right of the field. The reverse followed the last Balad style with *al-khāqān* and the mint at the top.[42]

The second type was basically the same but distinguished itself by adding the Shi'a proclamation of *ʿAlī walī Āllāh*/"Ali is befriended of God" below the *kalima*. The mint was at the bottom of this side. On the reverse, the mint stayed at the top; but the margin now held the date of 631 H.[43] Therefore in this type, the mint name appeared twice, once at the bottom of the obverse and again at the top of the reverse. As a result finally, but only at Astarabad, did Sharaf al-Din incorporate standard Islamic coinage practice. Nevertheless, sating the mint twice related the issue to the initial 630 H Samarqandi double *Shahada* type. A further correspondence between Astarabad and Samarqand was that the issue had a similar type of flan, which was very large and paper-thin. Therefore although now tied to the south politically, Dhihistan was strongly influenced financially by the second province. As a result, this innovative issue combined both Khurasani and Samarqnadi practices. The former included the ruler's title, and the latter copied the mirror style for the mint and the flan size. Throughout the rest of Mongol rule, Astarabad's coinage continued to show stronger ties to Samarqand than to Khurasan or Tabriz.

From that city, Sharaf al-Din seems to have returned to Naysabur because the distinctive *ʿayn* also appeared on a series there. The city now issued the Khurasani type with the reverse exhibiting the legend of *Qā'ān al-Āʿẓam al-ʿĀdil* and the mint on the right of the reverse inside a square. The issue had no date and, in contrast to the previous round, was copper,[44] perhaps the beginning of a customs tax.

Since the *Shahada* coins of electrum are extremely rare, it is difficult to ascertain the weight standard for them. For this survey, only one coin each was available from Samarqand, Khojanda, Naysabur, Isfara'in and Tus, two from Bukhara and

eleven from Astarabad and its environs. They provide a wide range of individual weights from 2.01 to 3.61 grams with one at 8.42 grams, about twice the normal coin. If the double one and the highest one of 3.61 grams, which belongs to the Khojanda coin, are removed, the average is precisely 2.75 grams or two-thirds of the 4.125-gram mithqal. On its own, the aberrant Khojanda coin is difficult to place but was probably made for purses at three-quarters of the 4.48-gram mithqal. The reason there may have been two standards can be attributed possibly to income tax registers. Yalavach may have insisted on keeping his previous standard in his new capital for the continuity of his financial records.

Identifying the weight standard of a coinage is as important as knowing the type of metal and interpreting the inscriptions since they all provide essential information on the structure of financial administration. The choice of mithqal and its division as well as the size of the flan and its inscription reflect the conceptual framework of finances at the time. The *Allāh* and derivative *Shahada* coins of Bukhara and Samarqand influenced the third province with their inscription and transferred to Khurasan some specific minting practices; in particular, a wide range of weights and impure alloy. On the other hand, the mithqal used by the *Shahada* series, excluding Khojanda, was that already predominant in Khurasan. For the Mongols, the change in weight from the *Allāh* to the *Shahada* coinage meant moving from a mithqal of 4.48 to one of 4.125 grams. Therefore, Chin Temur apparently assessed the value of this entire coinage, except for one enclave, in the terms of Greater Khurasan. The political significance of the weight shows that the province was separate from Transoxiana.

In reference to practical, on-the-ground monetization, Chin Temur and his agent, Sharaf al-Din, still had a long way to go since they allowed lenient quality control over both weight and alloy. For the time being, they accepted this, especially if the coins formed large groups in purses for substantial payments of tribute to the government. Tax accountants would have then taken the average weight rather than calculating individual coins. In regard to alloy, however, the mint made adulterated gold, which affected the value of the coin. In truth, the coinage was poor by any standard and would have had great difficulty as a medium of exchange. Therefore, presumably it was not intended for general use in market transactions but had a special function as mass tribute. In spite of these drawbacks, the incredible effort of Chin Temur to economically stabilise and bring civilian order to the region is the final testament to his impressive administrative and diplomatic capabilities.

The quriltai of 632 H

The new structure and coinage, however, ceased as Ogedai's new *quriltai* in 632 H cancelled the policy. Surprisingly, Chin Temur did not attend or send either his wazir or sahib diwan. Rather, he entrusted his personal deputy, Kirgiz, to report on affairs in the new province for him. Conscientiously, Kirgiz then appointed Nizam al-Din, the brother of the malik or governor of Khurasan, to carry out his duties while he was away.

The *quriltai* of 632 H addressed a point that had been ignored at the previous one, the taxation system of the entire empire. For the west, Rashid al-Din stated that the new land tax was at ten per cent and the herd tax or *qubchur* at one per cent.[45] This amount was exceedingly low and was so considered even at the time.[46] Although Rashid al-Din had access to chancery information unknown elsewhere, he made many mistakes and glossed over points of significant magnitude. It is highly probable that, in this situation, he was neither area-specific nor wise about all the tax forms. It is instructive, therefore, to also note a more precise record concerning the general, Chormaghun, who did attend the *quriltai* of 632 H. In the words of one who experienced his rule in Adharbayjan:

> Cawrman reported ... to the khan and was appointed the chief of the area. In the evening they convened a quriltai. ... For Cawrman gave good counsel. ... "There has been enough plundering and killing in the country; let cultivation remain," said he. "They can cultivate it and one half can be given to us to live off, of vineyard and field, and one half they keep for themselves."[47]

Both citations agree that the new taxes in the far west were based on primary production, specifically on agriculture, but probably at the higher rate of fifty per cent, not ten per cent. In any case, it is certain that Ogedai's instructions related to original production. In particular, there is no sense of a poll tax, which soon after was designated as *qubchur* since it was transferred from animals to humans and was a set amount per male head of household. Further, the system did not have a tax on secondary products, i.e. manufactured goods and marketing services. The tax on those was called the *tamgha* and has been reported for China at this time.[48] The above sources, however, indicate that the *tamgha* was apparently not applied yet in the west. Thus, in the new financial system of 632 H, the west contributed no poll tax from the army, no *tamgha* from the merchants and no monetary tribute from the conquered for the central treasury. An excellent example is Kirman, which submitted in 633 H/1235 AD. It paid tribute in horses and wheat according to its trade in them.[49] Rather, the government's decree announced that sufficient support would come from considering all the populace, Mongol and subject alike, liable for the same contributions from primary production. It was a radical change, indeed, since it levelled the tax base and had the great advantage of being both technically equitable and easy to administer. As a result, the new tax system was exceedingly simple in concept; and, although it changed two years later, its long-term effect was significant. Local taxes were rescinded,[50] and Mongol dues were applied to everyone.

Kirgiz, 633–40 H

When Kirgiz returned to Khurasan in 633 H, Chin Temur had died.[51] To replace him, Ogedai appointed a new governor, an amir who was more than a hundred years old. Sharaf al-Din assumed matters were to follow previous practice, so he

went to Batu to be reconfirmed in his office under the new governor. However, at the time Kirgiz had received his authority directly from Ogedai, he was raised in rank to the same duties as Sharaf al-Din had performed. Since the administration had already been established, Kirgiz and his staff continued to operate as before. Nevertheless, the diwan moved from Chin Temur's old residential site to that of the new governor, which meant that Kirgiz, "as usual, travelled to and fro" between old and new encampments. However, Chin Timur's wazir, Sharaf al-Din, soon left the old encampment for Batu's court,[52] effectively abandoning his case to retain his status.

Soon, Ogedai summoned Kirgiz perhaps because the province was not being governed satisfactorily, particularly in regard to the new taxes. Indeed, the entire empire was under review. Chinqtai, Ogedai's chief of finances at the time,[53] was instating standard taxation procedures. The need to do this was so particularly acute in north China that Chinqtai took the first census in 633–4 H/1235–6 AD and assessed a *qubchur* tax on each household, clearly a head tax.[54] As part of the general reorganization, when Kirgiz arrived at court, he "spoke of the taxation, assessment and census of the provinces, especially Khurasan and Mazandaran and of the arrears that were still outstanding".[55] Apparently, he made a deal which might have resembled that of Chin Temur's earlier one; if he could change the taxation system and bring in more revenue, he would become the governor. Ogedai offered that:

> perhaps then a *yarligh* may be written for him saying that as an experiment we have sent him to try to ascertain the extent of the produce of so many years and of the amount held back by each person; he is also to carry out a census; and no one is to interfere with him. When he returns, if he has done his task well, we shall know what to do.[56]

These instructions may well have been issued in 634 H at the time Ogedai had urbanization on his agenda. In that year, he built walls around Qara Qorum and refounded Ganja and Harat. With urbanization, perhaps also came the need for both tighter Mongol management of the cities and more money to pay officials. So far, Ogedai wanted only more produce. No poll tax was levied; but, already in the air from a census, taxation policy was advancing from the simplistic measures adopted at the beginning of the reign to at least a partially monetized tax.

An immediate result of the *yarligh*, however, placed Kirgiz in complete but temporary charge of the province on his return. He required the former amir to step down but gave him lesser functions until his natural death in 637 H.[57]

Biography of Kirgiz (d. 640 H)

Kirgiz was born in a small village on the trade route running through the western part of Uighur territory near Besh Baliq, not far from Urumchi in today's Xinjiang province of China. His lifelong astuteness in economic matters is evident from

two events in his early life. In the first case, when he was orphaned at a young age, he laid claim to his stepmother according to custom. She refused to marry him because of his tender years; but he appealed to the law and won his case, thereby protecting his assets and assuring a source of labour for himself. Later, as a more mature youth, he borrowed money to buy a horse, being able to give as bond the physical person of a relative,[58] perhaps the most severe test of someone's economic good sense and bargaining ability. Like Chingiz Khan, two of the most critical points in his early life centred on a wife and a horse. With his equine investment, Kirgiz rode the long distance to Jochi's *urdu*. He was accepted, and his first position was that of a shepherd.[59] He rose fast, however, so that, by the time Chin Temur became *basqaq* of Gurganj, Kirgiz was already his personal deputy.

His continuing administrative effectiveness and ability to manoeuvre through incessant intrigues and inconsistent policies finally put him in complete charge of the province. With his new, albeit temporary, authority as governor, Kirgiz forced the diwan to leave the camp of the aged amir and attend him. He then conducted a new census and re-assessed the taxes in-kind.[60] This was the point at which a poll tax was first possible for Khurasan. However, it would have differed from the earlier one suggested for Zabulistan because this one would have applied, like the produce tax, to all, both Mongol and subject peoples alike. In this, Kirgiz was following the basic precepts of the 632 H *quriltai* by broadening the taxation base. Since he also founded workshops,[61] he probably planned to introduce the *tamgha* tax at this time as well. As a result of these significant improvements, he technically established Khurasan on an equal revenue basis with the other two imperial provinces. Unfortunately, a similar history of the transition of the other provinces is not as well documented as that of Khurasan; but later evidence suggests that the same developments occurred there as well. In spite of Kirgiz's administrative advances, there was no coinage, not because he lacked a minting policy but because political intrigue raged.

Traditionalists versus innovators

After Kirgiz had established the new order, a different problem erupted; his rise to power and tentative hold on it did not go unchallenged. He had a mortal enemy in Sharaf al-Din, who now returned from Batu's court. The former wazir had lost any real power in the province because Kirgiz did not take much stock in either the military or the princely hierarchy. In this, he was following and even extending the behaviour of his mentor, Chin Temur. Kirgiz's sole leader was Ogedai, so he made little effort to consult the representative of the khan's nephew. This position so closely followed that of Chinqtai at court that it is evident Kirgiz was not acting independently. It was an early indication of the struggle between central authority and the separate *uluses*. With the support of Chinqtai at the core of power, Kirgiz assumed full authority and arrested Sharaf al-Din. The normal practice was to place the culprit in the custody of a responsible individual.[62] As a result, the ex-wazir was held prisoner by successive local leaders, his last warden being Mahmud

Shah of Sabzavar,[63] who began to treat him with great honour. In this atmosphere therefore, to regain status, Sharaf al-Din championed Chin Temur's son as the rightful governor, arguing that heredity rather than competence was required for the job. The matter was brought to Ogedai's attention, and the khan instructed three people to investigate the case. One of them was named Arghun, who made his first appearance at this date and quickly achieved great power in the province. The committee went to Kirgiz's camp and forcibly restrained the governor because Kirgiz not only ignored their remit but also intended instead to go to the royal court. In fact, Kirgiz retaliated by stating that only Ogedai, not his deputies, could determine the case. Nevertheless, the committee also forcibly removed the secretaries from Kirgiz's camp to Sharaf al-Din's; and Kirgiz moved them back again. The region became split; the Mazandaranis chose the side of Sharaf al-Din while the Khurasanis backed Kirgiz. It was a sad development that had repercussions for years to come. In this state of affairs, no one could issue much coinage or collect taxes. Eventually, Kirgiz escaped from Arghun and travelled with great speed to the khan's court. Sharaf al-Din and Arghun quickly sent Chin Temur's general, Kul-Bolat, after him; but, fortunately for Kirgiz, the general met an untimely death en route. The military agent rested on one stage with the regional governor in Bukhara and was killed by partisans in a local vendetta.[64] The demise of Kul-Bolat, the most capable person of the opposition party headed for the khan, meant that Kirgiz easily won the argument at court. He succeeded because he had the means and the ability to govern, which Juvayni interpreted according to an adage of the age as "there is no government save through men, and no men save through money";[65] and Kirgiz knew about money. Eventually, the matter was settled without death penalties, probably in 636 H. Propitiously, at the same time, another event secured a new advancement for Kirgiz.

The Tarabi Revolt of 636 H

The general reduction of military tension, the creation and levying of equitable taxes and the re-establishment of sedentary urban life had led to a reassertion of the identity of the local inhabitants in Bukhara. In 636 H, the populist Tarabi Revolt broke out, during which the poorly armed and hastily trained citizens amazingly forced out the Mongols. After several weeks, however, a large contingent of angry Chaghadaid Mongols gathered to subdue the revolutionaries.[66] Only the arrival and personal appeal of Yalavach, then definitely residing at Khojanda, prevented a complete massacre and looting. The revolt itself and the barbaric, knee-jerk Mongol response profoundly shook the whole empire. It was evident that the previous policy had failed, so Ogedai created a new imperial structure to strengthen central control over princely incursions. The clearest manifestation of the reform was the transfer of governors. Yalavach and his partner, A-hai's son, were sent to China, the first province,[67] while Yalavach's son, Mas'ud, replaced both of them in the second one.

Biography of Mas'ud Bag (627–88 H/1229–89 AD)

Mas'ud Bag began his career as an assistant to his father, Yalavach, sometime after 627 H/1229 AD. At this point ten years later, he took over his father's post. Later at Ogedai's death, he was compelled to flee for his life and resided under Batu's personal protection on the Qipchak Steppe. In 644 H/1246 AD, Guyuk put him back in office; and Mongka re-confirmed him in 649 H/1251 AD. From that date to 653 H/1255 AD, he ran his province and toured it from Besh Baliq and Almaliq to Samarqand and presumably other places not recorded. During his tenure, he followed the precepts of his father; and, by the time of Mongka's reign, "economic activity in Central Asia is said to have reached the level prevailing before the conquest".[68] Also like his father, Mas'ud was able to dissuade another Chaghadaid khan, this time Alghu (658–63 H/1260–5 AD), from sacking Samarqand and Bukhara as a punitive measure during the civil war between Ariq Buqa and Khubilai.[69]

At that point, the activities of Qaydu and Baraq added to the general unrest; but eventually in the 670s peace returned. For that period, Mas'ud Bag is credited with introducing measures to revive agriculture, trade and urban life as well as to promote extensive and long-lasting monetary reforms. He managed to stay in office until his natural death in 688 H/1289 AD. Once Baraq had died, Qaydu was the leading power; and he appointed Mas'ud's eldest son, Abu Bakr, to take the same position. He, in turn, was succeeded in 698 H/1298 AD by his brother. Then in 701 H/1301 AD, Qaydu's heir appointed a third son of Mas'ud to be the civilian governor or Turkestan. By then, the post had been in the family for over seventy years.[70]

Revolt's effect on the third province

Further west, Ogedai also re-organized Kirgiz's province. It was greatly expanded in order to provide similar stability in the outlying regions. Suddenly, the province covered the remainder of all the military lands so that "whatever countries were conquered by Chormaghun's forces (to the west) of the Oxus were all entrusted to him by Qa'an, who gave him *yarlighs* and *paizas* to this effect".[71] Tight civilian administration now took over territory that had been under the amorphous control of wandering people alternating between warriors and herders.

During this state of enormous transition in the empire, Kirgiz visited the camp of Batu's brother on his way back in order to regain the loyalty of the Jochids. After reporting and reassuring them, he proceeded through Khwarazm to Shahristana.[72] It is possible that after that visit, his first task was to help rectify affairs in Bukhara. The terms of the amnesty in 637 H seem to have required a tribute payment from the inhabitants in return for their lives and property. It is not reported as part of the settlement, but suddenly coinage re-appeared after seven years. It followed the first type of the Samarqandi 630 H minting: the obverse had the long Umayyad *shahada* while the reverse had the mint at the top of the field and the short *shahada* below. This time, however, the metal was not electrum, that is adulterated gold; it was copper.[73] In that respect, it seems to have followed the

last minting at Samarqand in 624 H, an exceptional issue then and, in this case, specifically a ransom payment. The choice of copper was probably dictated by a bureaucracy still inclined towards Chinese practices but may also have reflected the assignment of silver and gold to other uses, particularly the beginning of the massive government manufacture of West Asian brocades from the area.[74] It seems that Kirgiz retained Chin Temur's responsibility for coinage at his critical point. However, Mas'ud soon had a strong system in place for himself so that other places in the province started to issue, such as Almaligh in 638 and 639 H. As a result of the tremendous upheaval, Kirgiz, Mas'ud and Mahmud Yalavach jointly administered the entire domains of the Mongol Empire that belonged directly to the khan. It is significant that Kirgiz , like the other two governors, had powers completely independent of the military.

The long and eventful trip home from Qara Qorum finally brought Kirgiz to his own *urdu* in Khurasan in Jumada I, the fifth month, of 637 H.[75] However, Ogedai, having granted him such vast new powers, had deemed it prudent to send a watchdog back with him, namely the same Arghun who had tried to arrest him. "The emir Arghun was appointed *basqaq* to him and his *noker* or associate in the administration of affairs, so that Korguz might carry out all business in consultation with him and embark upon nothing without him".[76] However, Kirgiz paid no attention to this order and governed alone. Arghun, left completely out in the cold, was compelled to depart or lose credibility. Therefore, he soon returned to court.

Nizam al-Din in Adharbayjan

The new administration of Kirgiz planned to put into effect some essential and radical measures. One of these was to announce and enforce Kirgiz's authority over Chormaghun in Arran and Adharbayjan. For this purpose, Kirgiz sent a delegation with his son as the nominal head; but his deputy, Nizam al-Din, was in actual charge.[77]

Earlier, from his roaming camp in Mughan, the general had been the only Mongol presence in the area of the Caucasus. He had imposed his leadership on the territory and divided it into northern, southern and western areas.[78] Presumably, regional centres directed the affairs of the sedentary subject population. If so, Tiflis may have been the centre for the north, Ardabil for the south and Ganja for the west; but these cities do not easily correspond to the geographical divisions.[79] Information is sketchy; but, in any case, all these cities were subservient to the Mongols, who ruled through local groups: Ganja by the Khwarazmians, Tabriz and Ardabil by the Ildigizids and Tiflis by the Bagratids. As reported by the son of one of the members of Nizam al-Din's diwan:

> when they arrived in those regions they had many disputes with Chormaghun's commanders and finally they took over those territories from them and fixed the taxes. For (until then) each province had been held by a *noyan* and every town by an emir, and they had been content to levy but a small portion of the taxes for the Diwan and used to seize the remainder for themselves. It was all taken from them and (considerable) sums were drawn upon them.[80]

This statement sheds some important detail which can help to reconcile the two rates of taxation reported for the *quriltai* of 632 H. Apparently, Chormaghun's rate of fifty per cent allowed forty per cent to go to local disbursements and the ten per cent of Rashid al-Din to the central treasury. If this is the solution, Nizam al-Din did not accept that he was going to receive only ten per cent; and he planned to remedy the situation immediately.

Administrative development and the Bow coinages, 638–40 H

To regulate proper imperial taxation and to facilitate its collection, the Mongol administration once more established a mint. The new money had three varieties, all of which had the distinctive feature of a bow. The symbol conveniently provides a label for the series as the Bow coinages.

For the new payments, Nizam al-Din amazingly but very pragmatically broke with previous Mongol minting tradition. First, he used silver, thereby following Salljuq practice. One reason he did so was probably that the new territory, lying between the Black and Caspian Seas, had never used the eastern combinations of copper combined with silver, copper coated with silver or gold mixed with silver. It used gold, silver and copper separately, usually at high levels of purity. Second, he also adopted the accounting systems of the local regions by minting silver at indigenous weights. However, for the inscription, after a transition period, he settled on the Mongol style by using the Isfara'in 630 H gold legend as his model. It was the signal of continuity in the province, facilitated to a large degree by Nizan al-Din's ability to draw on his brother's basic die design from the first Mongol minting period in Khurasan.

The nascent administration, but briefly reported in the texts, reveals itself in more detail through the coinage. The most obvious information comes from the design. A slight but significant change from the Isfara'in coinage was inspired by the pre-Mongol rulers of the Mughan Steppe. Instead of the mint at the bottom, as in the model, Nizam al-Din copied the Mughan bow. It lay in a horizontal position with the tautly drawn string at the top, exactly as it had appeared on Ildigizid coins. On the prototype, however, the bow was on the obverse, not the reverse. The original also had a dot in each section whereas the Mongol coin had nothing inside the bow. The Mongol series clearly transformed the formidable weapon into a ceremonial symbol. That aspect was particularly evident on issues that had tassels at the tips of the bow.

Besides registering the amalgamation of two different traditions, that of Khurasan, which went back to Kurriman in Zabulistan, and that of Adharbayjan, the design also indicated other administrative features relating to the manner and

place of the diwan's operation. The information, however, is scant since specimens are extremely rare. As a result, the chronology of mint activity must remain speculative.

Ardabil

Presumably, Nizam al-Din established the initial mint at Ardabil, the former Ildigizid capital, as the last Ildigizid and first Mongol coinage designs and metrology are the same; only the internal wording differed. His first issue had a linear circle around the field on both sides with no marginal inscription. It was a simple and very basic coinage of copper with an obverse that had *al-mulk li-llāh/ Ardabīl* and a reverse of *Qā'ān al-ʿĀdil*/bow.[81] Then the coinage turned to silver, and the obverse legend was moved to the reverse, stating only *al-mulk li-llāh/ ḍarb-i Ardabīl*/bow. The obverse gained the normal short *shahada* of *la ilāh illa/ Āllāh Muḥammad/rasūl Āllāh*.[82] That type developed into the next series, which read *al-mulk li-llāh/Qā'ān al-ʿĀdil*/bow with no mint and kept the *shahada* on the obverse.[83] The last type was devised by someone with a clear and careful hand. The module for the whole series was small, at just over two centimetres, but normal for the area. The Mongol weight standard appears to have been 2.55 grams, which perhaps reflects the Ildigizid practice of random weights for its copper coinage rather than an actual unit standard. Indeed, few coins remain to determine the standard since two whole units and a half coin, each a different type, cannot provide a secure assessment of the standard. On all types, there was no date; but the next coinages suggest that Ardabil minted very late in 637 H.

It is clear that the diwan was experimenting with types, and the fabric contained large portions of copper. Therefore, in both metal and inscription, Ardabil's coinage shows a transitional stage. Soon, however, the diwan developed a better policy once it reached its next destination, Tiflis.

Tiflis

In Tiflis, Nizam al-Din first used in 638 H the design from Ardabil. The issue had an obverse with the simple *shahada* of "There is no god but God, Muhammad is the messenger of God" with a marginal legend that gave the date. In essence, then, the obverse simply continued to follow the idea of the last Isfara'in coinage reverse field. Nevertheless, the obverse had a distinctive feature that gave *Muḥammad* a whole line by itself and put the second half of *Āllāh* on the top line. The reverse had *Qā'ān/al-ʿĀdil*/bow with a marginal inscription that gave the mint.[84] It, too, essentially copied Isfara'in but dropped *al-āʿẓam*. This slight change returned the inscription to the last billon of Kurriman from 622 H.[85] The significance of this issue for the future was that these two words of *Qā'ān al-ʿĀdil* specifically identified money from the third province until 671 H. Then there was a second issue from Tiflis in 639 H, which had a dotted line on the margin and changed the *shahada* back to its usual division with *Allāh* and *Muḥammad* sharing the same line.[86]

Although the dates clearly indicated each year of issue, the marginal design provided the same information. The circles changed from linear to dotted as the years advanced. Later combinations of these two elements continued to visually identify the issuing year or different mints in the area, another practice the Mongols adopted from Zabulistan. Since the weights cluster at about 2.63 grams, this issue and the next one from Tiflis closely followed the standard of the last silver coinage from the city in 628 H. Nizam al-Din's intention was to work within the local recording system.

Another group of coins, which has not provided a date or legible mint yet, is identified by the short *kalima* on the obverse and simply *Qā'ān al-ʿĀdil*/bow on the reverse.[87] However, since it had no mint or date, following the last Bow type conjectured for Ardabil, this series probably followed the same precepts and was made at the same mint. Since the margin is dotted, similar to the 639 H Tiflis issue, it was probably struck in the same year. Moreover, the weight of this group corresponds to the last type that came from Ardabil. If this series did not come from Ardabil in 639 H, the only other possibility would be Ganja, another Ildigizid site, from which, however, no verified coinage has yet emerged.

To recapitulate, the mint officials seem to have first struck in Ardabil in 637 H and then moved to Tiflis in 638 H. Apparently the purpose of the diwan's round was to collect the assessment in 637 H from Adharbayjan, in 638 and early 639 H from Gurjistan and in late 639 H again from Ardharbayjan. As Juvayni reported, "it was all taken from them"; i.e. the army, which amounted to "considerable sums". As before in Samarqand and Khurasan, each mint served an entire region. Further, the tax was probably similar to the first *Qā'ān al-ʿĀdil* coinage, being a head tax based on the number of individual Mongols in the resident army stationed over the subject population.[88] In Arran, there had been no time for a census of the indigenous people; yet Nizam al-Din knew the size of the army since it was strictly accountable to its leaders. Although situated in the countryside, Mongol forces nevertheless rendered the poll tax in urban centres because only there could Nizam al-Din find local craftsmen to make coins. It seems that Nizam al-Din had not come with skilled artisans from Khurasan but, instead, had to rely on an appallingly limited level of indigenous resources. This rudimentary situation is suggested by the design, inscription and calligraphy of this series, most of which were extremely basic and even crudely executed.

The Bow coinages indicate that although Kirgiz had planned a taxation programme to cover all the population, as in Khurasan, he did not institute it during this first stage. Rather, the magnitude of the problem initially required tested solutions. Therefore, first the Mongol army and then the territory with its subject population would come under the jurisdiction of the provincial administration. This approach meant that Kirgiz's initial coinage in Adharbayjan was an intra-Mongol affair for a poll tax. By establishing his control over the army, replete with its families and livestock, he created the beginning of a Mongol state in the region.

Steppe symbols of political legitimacy

The addition of a bow to the design began an important Mongol tradition of figural images that complimented the written messages derived from Islamic coins. The bow was the first image the Mongols chose because it had long been a symbol of political authority among Central Asians.[89] While the conquerors were undoubtedly exceedingly competent with the bow, it would be incorrect to consider that it was their symbol alone. Nevertheless, a contemporary Armenian applied this general steppe insignia of legitimacy specifically to the Mongols, making him the founder of a picturesque misnomer: Grigor of Akhan' produced *The History of the Nation of the Archers*, which was completed by 669 or 670 H. Unfortunately in his work, he never differentiated the groups that composed the Mongol forces; rather, he distinguished only the opposition forces of Armenian or Albanian (that is, highlander or lowlander) and Georgian groups. Juvayni, on the other hand, did make a distinction and gave the Turkish archers superiority. For example, when Ogedai was campaigning in China, one town was so well organized and fortified that only the archers turned the siege. Juvayni states that:

> The Turkish archers (who can, if they wish, with the discharge of an arrow, sew up the eyes of the heavens) charging to and fro with such effect that [poetic couplet] with every arrow that they let fly with the speed of a shooting star they hit the target.[90]

The history of this emblem in numismatics verifies Juvayni's precise observation. The bow first appeared on coins of the Turk, Tughril Bag. The Great Saljuq ruler, after taking al-Rayy, struck gold there in 434 H with an arrow and bow at the top of both the obverse and reverse. The bow was a simple arched line with the curve bending upwards while the separated arrow stood vertically by its side with its tip at the top.[91] A few years later, in 457 H, the next Saljuq ruler, Alp Arslan, struck gold in Kashan. On the obverse, the arrow moved under the bow; but it stayed in the same position on the reverse.[92] This symbol was also used on chancery documents.[93] It represented not only the fact that the Saljuqs had first established themselves as the hereditary military commanders, *yagbu*, of the Oghuz steppe federation but also specifically promulgated their progenitor, Temur Yaligh (Iron Bow).[94] A century further on, the Ildigizids, who were protectors of the decaying Great Saljuq Dynasty, would have had every right to incorporate the symbol into their coinage; and they did. Continuity of Saljuq legitimacy may well have been their purpose; however, they modified the design to show their special status. The bow was placed at the bottom on only one side of the coin; and a dot was put in each section of the bow. Therefore, according to numismatic evidence, the bow was not a graphic sign of the Mongols at all but a development of the imperial *tamgha* of the Great Saljuqs. As a result of their choice of this symbol, the Turks should be called the "Nation of Archers" rather than the Mongols. Although the Mongols understood without a doubt the significance of this symbol of authority, they also realized it prolonged the image of defunct dynasties. After

the period of this coinage, which lasted only from 637–40 H, the Mongols abandoned the Saljuq bow for other images.

Choosing a Mongol imperial *tamgha* turned out to be a complicated affair because of the myriad cultural differences in the empire. It is difficult in this century to understand much of the emotive power of each symbol, yet every one was extremely significant at the time and had an important role in court protocol. *Tamghas* were and still are used to declare ownership, being marks or brands on moveable capital, such as roaming livestock. However, imperial marks often included ceremonial instruments of warfare. The example already given on Ildigizid coins could be broadened even within the same dynasty; the bow was only one of several weapons represented on coins. Others were the curved sword, trident and dagger. It was even possible for one symbol to reinforce another; the bow and trident often appeared together.[95]

All of the symbols used by the Ildigizids appeared briefly on Mongol coinage; the bow with dots in Qarabagh in 640 H and Nakhchavan in 643 H, the dagger and sword in Tabriz in 643 H and a double trident across the empire for Mongka Khan in 650 H among other examples. Although the Great Saljuqs introduced the idea of a *tamgha* on coinage by using one particular mark, their successors, namely the Ildigizids, the Rum Saljuqs, discussed below, and the Mongols expanded the repertoire. Without any hesitation, the Mongols further developed symbols of martial power and ownership in their next coinage type, which lasted from 642–6 H. This was not the end, however; they continued to use a number of symbols on various later coinages.

The implications of growth and stability in the Mongol civilian presence in Arran and Adharbayjan were felt further afield. In particular, the presumption of the Mongols to mint their own money in 637 H, much less to use the Saljuq metal of silver, was a formidable statement of the improved structure of the Mongol Empire and its emphasis on urbanization and sedentary order. To counter the Mongol statement made by its coinage, the Rum Saljuqs issued a brave new design in 638 H.

The change was not only a reaction to Mongol production but also a reassertion of Saljuq dominion. The regime had just experienced the revolt of the dervish, Baba Ih'haq, as a symptom of the growing weakness which soon let the dynasty fall under the Mongol yoke. Prior to 638 H, Rum Saljuq coinage had generally declared the sultan on one side and the 'Abbasid caliph on the other, in spite of some lapses in honouring the caliph such as in 616 H. However, in the new coinage of 638 H, the Saljuqs of Rum chose recognized and blatant emblems of power: the astral sun and the terrestrial lion, lords of their respective realms of heaven and earth.

On one side of the coin was the title and name of the sultan, Ghiyath al-Din Kay-Khusraw II (634–44 H), and on the other a resplendent lion, behind which rose a radiant sun. The meaning of the symbolism was hard to ignore. The sun represented heavenly power and blessing, which supported the Saljuq ruler, represented by the lion, who in turn could control the world. The ruler's identity with ultimate authority was elsewhere displayed in every way possible, including

surrounding himself with various felines. For example, at the decisive battle for Rum in 641 H:

> when they (the Mongols) came to the camping ground [of the Sultan] they did not find anything, only the tents filled with much provender. They beheld the tent of the Sultan with many treasures, adorned within and without. [Wild] animals, a leopard, a lion, and a panther were tethered to the door of the Sultan's tent. For in the same night the Sultan had fled with all of his army.[96]

If the Mongols had the Saljuqs and other Turks as predecessors for using images to denote authority, the latter had the Byzantines but not the Muslims as models. The Islamic rulers had a different religion and world-view from the Byzantines which had produced a major change in the development of numismatic symbolism. For Muslims, words were the source of power. However, the new Turkish dynasties had ignored this even though they were Muslim. Many of the artistic images in the trend to announce spiritual confirmation of the ruler had begun with the earlier twelfth and thirteenth century Jaziran copper coinages,[97] but the lion series was the first figural coinage issued by the Rum Saljuqs. All of these symbols in 638 H contained strong Central Asian motifs, not Christian or Muslim ones.

Since the lion and sun were Central Asian signs of power, which the Mongols understood perfectly,[98] the Saljuqs had taken up the gauntlet in the symbolism war. In effect, because the Mongols had dared to borrow the bow from the Ildigizids, the Rum Saljuqs announced their supremacy by marshalling a higher spiritual force. Moreover, the Lion-Sun coinage was not a hollow claim; Saljuq power did expand in the year of 638 H, exerting enough pressure to make the Mongols leave Tiflis. When the Saljuqs later submitted in 641 H, Tiflis had to be retaken by the Mongols the following year. Only when defeated did the Saljuqs return to their former style of coinage and abandon their new symbols. Tiflis, on the other hand, immediately re-entered the Mongol fold. It struck the style and weight of a radical new Mongol type, its design inspired by the expanded imagery of the Lion-Sun coinage.

Kirgiz in Khurasan

Back in his province after winning his court battle, Kirgiz removed himself to Khurasan, the area that had favoured him during his trial. He had learned well from the disrespectful behaviour of the camps towards his own retinue, so he rebuilt Tus. He made this city the government residence and erected a building to enclose the state treasury.[99] A fixed site was a most uncommon Mongol practice and indicated the large-scale extent of his intended reforms.[100] The installation of a permanent seat probably occurred early in 638 H, although no date is given in the sources. Once he had a secure base, Kirgiz was finally ready to implement his new taxation policy. It is possible that at this point he struck half units of gold and silver.[101] The gold piece is very battered and clipped into a square shape; but the

reverse, in a linear circle, states the mint. The silver issue had a reverse of *al-dirham/Nāṣiriya/Ṭūs* in a linear square. There were confronting scrolls in each section outside the square.[102] Both the pale gold and silver used the same obverse die, and the weight of both are on the same standard. Although a bit light, when doubled they are close to the normal 2.75-gram unit weight expected in the region for silver coinage. He then began to establish a firm hand over the rest of Khurasan, as exemplified by Balkh, which had a silver issue in 640 H.[103] Finally, Khurasan was returning to normal.

Adharbayjan: commercial development and the Prosperity coinage

As related, civilian rule and taxation were the driving forces behind the diwan in Adharbayjan. Nizam al-Din took less than two years to complete his first remit of incorporating the generals into the architecture of an imperial province. As soon as that was well in hand and the imperial treasury filled, he started a different tax, one levied on commerce so that the officials in Arran could fill the new governor's local coffers. The evidence for this turn of policy is a separate silver coinage issued at the end of the year of 638 H and lasting to 640 H, probably covering three years of taxation. Although the obverse did not change significantly, and the reverse kept the bow, which gave them visual continuity with the first group of Bow coinages, the reverse changed its inscription with its purpose. It proclaimed the city on the top line, then *ʿAmara hā Allāh*/"May God make it prosperous" with the bow in its same place at the bottom, as illustrated in Plate 4.1. Like the *ʿAdl* coinage, the reverse inscription referred to the function of the money; so it is labelled the Prosperity coinage. The new *ʿAmara hā* money was clearly intended to create wealth for the towns so that commerce could be taxed. Further, God was called on to make the place prosperous; the highest authority was directly involved, not any human intermediary or ruler. This concept ran counter to the Aristotelian tradition, which so steeped the Christian and Islamic theory of economics.

Obverse

Reverse

Plate 4.1 Prosperity coinage (Bayaqan) (No date; weight: 2.78 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

Since prosperity meant artisans and commerce, the legend suggests that a new tax was employed, namely the *tamgha*. It was a customs tax[104] and probably consisted of at least two forms: mainly variable tariffs on goods entering and leaving the towns and then on profits from imperial workshops. With the change of emphasis, the diuan presumably expanded the state factories such as the *garkhane* Chormaghun had established in Tabriz, over which he had placed the Mongol, Mengu-Bolad.[105] After fleecing the standing army through a poll tax, Kirgiz, in late 638 H, started to tax all the residents according to the production and movement of goods. Thereby, he imposed a new and wider taxation base on Adharbayjan; and the revenue would grow if prosperity increased. If the *tamgha* tax at this time followed the same policy it did near the end of the century, the revenues were reserved for local expenditures.

Production sites

TABRIZ

The new silver coinage was issued first in Tabriz. To date, only one coin is known of the first type.[106] The mint, *Tabrīz*, is clear; but the year, unfortunately, is illegible. Nevertheless, it was probably struck late in 638 H.[107] There were new dies for both sides made by a different calligrapher from the one employed for the Bow coinage, but he had a crude hand. In early 639 H, Tabriz mined again with a clear date.[108] The diwan continued the practice from the previous Bow type of alternating the linear with the dotted edge design for each year, the linear for 638 H and the dotted for 639 H. This was the first coinage the city ever produced in its history. A number of reasons for striking suggest themselves, namely the major imperial workshop in Tabriz, the city's position on several trade routes and its strategic location. Further, the *ortaq*[109] trade consortia of Central Asian Muslim merchants, working with a khan, would prosper from an extension of commercial routes.[110] Nizam al-Din would have been well aware of their needs and operating structure. Presumably either he encouraged them, or they lobbied strongly for his official help to strengthen and regulate trade.

BAZAR

Later in the year, the mint moved to Bazar,[111] which probably was Chormaghun's headquarters. Notably, the word *Bāzār* was a definite indication that the main Mongol camp had become an active centre of peaceful trading: the term *urdū*/"palace encampment" never appeared on Mongol coins from this area. Later, whenever the mint was at the royal camp, the inscription would state *Bāzār*; money was issued for the place as a market, at which merchants were taxed, not for its position as the seat of political power. When the mint moved from Tabriz in 639 H, however, the Tabriz die engraver seems to have been left behind. The Bazar dies had different stylistic forms, which indicate a new engraver or local mint master. According to the calligraphic display, the general's camp was apparently in the Ahar region. After

scouring the countryside, Nizam al-Din seems to have found the obscure craftsman who had made the dies for the copper of Nasir al-Din Mahmud b. Muhammad and Nutshireen b. Muhammad, the amirs of Ahar, twenty-five years earlier. An engraver capable of sinking dies needed a long training period and consistent work to retain his skill, requisites that were lacking for the new Mongol coinage otherwise. Stylistic curiosities in both series provide a possible connection, in particular, the distinctive platform step in the middle of *ilāh*.[112] Therefore, the coinage suggests that the main Mongol army favoured the Ahar region.

GANJA

Soon, the imperial diwan completed its total restructuring of the administration of the area. Nevertheless, shifting the function of the main Mongol camp from a military strongpoint to a trading centre still did not seem enough for Nizam al-Din. He wanted to remove any political importance it still retained, so he had Chormaghun join the same system Kirgiz had created at Tus. Therefore, "they transferred the great house of Cawrmaqan to the city of Gandzak, which had previously been devastated and afterwards restored".[113] The mint went with it from Bazaar to Ganja, which issued the same type there.[114] Shortly after, Batu relieved Chormaghun as supreme commander in the west, another indication that military, political and financial reforms were occurring almost simultaneously in the empire. Consequently, the diwan established a permanent seat at Ganja in 639 H, from which it continued to develop a customs tax currency. In the same year, it travelled to Langoran, near the coast,[115] and then in 640 H to Qarabagh,[116] midway between Ganja and Tabriz. Not only were there several new collection points but Nizam al-Din also assigned a new weight standard to the coinage, the one used in international trade with the west. He put the main coin at 2.83 grams.

This coinage was the first indication that the Mongols were encouraging local agriculture and manufacturing to increase trade. The tax on commerce fell on trading companies and perhaps indigenous manufacturing peoples, expanding the tax base. Thus, Tabriz entered the monetary scene, issuing its first coinage ever, as a trial site for the new revenue. At first, the diwan focused on the production site for crafts and then the main market site until it established a separate administrative centre at Ganja.

Review of imperial administration

Both the Bow and Prosperity coinages reflected major advances in the administration of Greater Iran. A brief review recalls that under the first Mongol policy, Tiflis and Ardabil were natural places for mints. The tax was levied on the Mongol residents of each region, but the coins were made by local artisans in the centres directed by Mongol officials. By using these sites, the diwan first removed a good deal of power from the military stationed in the countryside. Second, the government involved some of the native population in administration, which was

a counter to the army; and, finally, it facilitated immediate collection and safe storage of the assessed dues. However, the initial policy, based on a poll tax, had limited the amount of coinage in circulation. Tax was collected once a year, apparently, and the number of heads determined the amount of money raised. The revenue for the province remained static unless the tax itself was increased, which had to be approved ultimately by Ogedai. Moreover, such a policy was eventually self-defeating and would have led to massive tax evasion.

A revised policy, however, was aimed at trade, which required a mint at the manufacturing or trading site. Presumably, the tax was collected at entry points to the towns or at the warehouses inside them. All trade companies, whether Mongol or local, were subject to the *tamgha* tax. Therefore, the mints left the old capitals of former dynasties for locations on the watershed of the Kut-Aras River network, apparently an important trade route. The stress on trade, however, was not inspired simply by economic factors, i.e. for maximising profits. There was a significant matter of the beneficiaries of the improvement, whether they were the primary producers, the intermediaries or the authorities. A further reason for the shift in focus was the structure of the economy itself: the culture of the dominant group created or altered demand for many products as well as determined who had the trade contacts and where they were located. At this time, both the Tabriz and Ardabil populations were predominantly Persian speaking with an Iranian dialect from the group called "Caspian".[117] Tiflis also spoke an alien tongue. In contrast, the Kur-Aras sites were already very Turkish and were to remain the favourite abode of the Mongols. For example, the mint of Qarabagh, meaning "black garden", was certainly a Turkish centre. The new sites indicate that Central Asian Turkish groups were in the economic ascendant, in charge of the products and directing the routes. The realignment of mint locations in the new policy re-emphasised the point that the coinages were issued for Mongol purposes.

By being legal tender to pay tax, the money became a standard for exchange, which substantially enhanced commerce. The amount of money needed to pay the tax, either in account or by actual coins, would increase as the value and volume of trade increased. Therefore, by promoting production and safe routes, the civil administration, in effect, created a trade currency. Not only did it allow merchants to exchange goods more easily since coins were readily available but it also fit the accounting and weight standards of foreign markets.

Weight standard and trade connections

The Mongols, in establishing their trade currency, did not choose the weight for the single unit coin from either of their neighbours, not the Saljuq 2.92-gram nor the Bagratid 2.61-gram silver coin. Rather, they selected that of the Artuqids at 2.83 grams, which was a division of two-thirds of the mithqal of 4.24 grams. The Artuqids, a Turkish dynasty far to the south on the bend of the Tigris River, in turn may have acquired it from the Ayyubids.[118] As noted in the previous chapter, from 627 H all Artuqid coinage had the Aleppo design of a hexagon on both sides. Such

stylistic similarities would suggest that the two principalities had an exchange agreement and possibly close trading ties. The strength of this route apparently made this mithqal weight the standard for the Jazira. For example, Irbil also used the same mithqal once it started to mint under the ʿAbbasids in 643 H;[119] but the ʿAbbasids in Baghdad used a different one. Further research may unearth other adherents to this mithqal at this time.

Nizam al-Din's choice was a significant indication of the importance of the 4.24-gram mithqal. Because the Mongol presence was to grow substantially in the coming century, the heavier weight eventually became the general standard from Rum to the Oxus River and supplanted the lighter mithqal of the late ʿAbbasid period.

Not only did Nizam al-Din choose the same mithqal as the Artuqids but also the same proportion of the individual coin to it. The Artuqids struck their coin, not at seven-tenths, but at two-thirds of the mithqal. Curiously, to date, no other mint has been found in the period to also have struck silver at two-thirds of the 4.24-gram mithqal. However, this division had existed much earlier in ʿAbbasid coinage during the height of the empire.[120]

The Artuqid capital was Mardin on a rocky promontory on the southern edge of the Anatolian plateau; but trading took place in the nearby city of Dunaysir on the southern plain below but within sight of Mardin. In order to connect into this Jaziran trade network, Nizam al-Din matched the new Mongol coinage exactly with that of the Artuqids since the Prosperity coinage was 2.83 grams or two-thirds of the 4.24-gram mithqal. Moreover, Mongol contact with dynasties further afield was also occurring, such as with the various Ayyubid states.[121] In particular, the Ayyubid penchant for geometric designs, notably the square and hexagon, was soon adopted by Mongol coinage.

It is highly probable that the reason Tabriz minted at par with Mardin was to facilitate Mongol use of the extensive and lucrative Artuqid commercial connections. Such economic co-operation was possible because, at this point, the Mongols had politically neutralised the region south of the line from Arzan al-Rum to Tabriz. Only small principalities existed which were on the edge of and between larger states, functioning chiefly as commercial intermediaries. A similar situation in the previous century had revived the region's prosperity so that it once again had reached the same economic level achieved just before the Arab invasion. Now, the Mongol commercial houses could trade the products of imperial workshops as well as of local artisans by sending them to Mardin via neutral territory. The land was peopled mainly by Armenians, and the route probably progressed around the north of Lake Van, through the Bitlis pass in the Taurus Mountains, over the plains of Diyarbakir controlled by the Ayyubids and then down the slopping foothills to Mardin. Below it, on the flat plain at Dunaysir, the caravans went west to Syria and south to al-Mawsil.

The wealth and strength of this trade may be reflected as far distant as Egypt. Presumably, the Ayyubids in both Egypt and the principalities of the Jazira and Syria had commercial ties as strong as their political ones. As a result, Jaziran

trade may well have influenced Egypt to raise its mithqal from 4.125 to 4.24 grams in 636 H. This change had occurred just two years before the Mongols issued the *ʿAmara hā Āllāh* currency. Therefore, Nizam al-Din seems to have clearly understood that identical mithqal standards for coinage from Egypt through Syria to Adharbayjan would greatly facilitate accounting for merchants and allow payments to be made quickly. It should be remembered that, although the Mongols had a low opinion of agriculture, they had a highly developed interest in trade. The second recorded Mongol contact with the Islamic area had been Chingiz Khan's trade mission to Utrar. The Prosperity coinage now put them on the international trading circuit.

The demise of Kirgiz and the rise of Arghun

Administrative matters seemed well in hand finally, but personalities at the top level collided once more. The outcome of the conflict gave affairs in the third province a new direction. After securing his diwan and treasury in Tus and Ganja in 638 and 639 H respectively, Kirgiz felt secure enough to act on his enmity for the former wazir, Sharaf al-Din. He led a virulent intrigue against the Jochid, and both had to resort to court again to settle the dispute. En route through Chaghadaid territory, Kirgiz uttered some harsh words against a leading amir. A little farther on, he received word of Ogedai's death, which had occurred on 5 Jumada II of 639 H.[122] In the resulting state of political confusion, the Chaghadaid court, which was particularly sensitive to its status because of Chaghadai's own recent death,[123] ordered Arghun to bring Kirgiz to them for trial over the insult to the amir. Arghun did so but only after besieging Kirgiz in his stronghold at Tus. Kirgiz once again challenged the *urdu* coalition, claiming that the Chaghadaids did not have the authority to try his case. He was correct in his assessment, so they had to refer it to Ogedai's widow. Nevertheless, ultimately, he lost it;[124] and his wazir was imprisoned in Samarqand. Kirgiz was returned to the Chagadaids and received his punishment from them. His death at their hands probably occurred in 640 H. The action prevented further extensions of his programme and brought his coinage to an end.

Since Arghun had been ordered to release Sharaf al-Din from prison and had successfully brought Kirgiz to court, he benefited from his own trustworthiness and ability. Arghun was an Oriat Mongol, one of the favoured clans, who was literate in Uighur.[125] In 641 H, Ogedai's widow:

> Torgene Khatun placed the territories he had held, from the Oxus to Fars, Georgia, Rum and Mosul, under the command and control of the Emir Arghun and appointed Sharaf al-Din to accompany him [as chief deputy], the other officials being retained in their posts.[126]

Apparently, the main portion of Kirgiz's well-functioning diwan stayed in Arran awaiting orders from the new governor. Kirgiz may not have intended it to remain long in Arran after establishing civilian control, but his demise suspended it there.

Arghun could but inherit Kirgiz's government structure in the turbulent environment then surrounding the central royal court.[127] In such a situation, by forfeit, Arghun retained the area of Adharbayjan as the centre of Mongol monetary production for many a year to come.

Kirgiz was the most important person in the development of Mongol money. By 630 H, he was the chief associate of the governor of the newly created third imperial province. The khan himself appointed its governor and received the province's revenues. The governor made payments in 630 and 631 H, jointly from the second and third imperial provinces. Initially, these seem to have consisted of large sums of tribute in pale gold. Then, in 632 H, Ogedai held another *quriltai* in which a major emphasis was on tax reform. Both Kirgiz and Chormaghun attended from the western regions, reporting on affairs in Greater Iran. The outcome was a tax policy that re-defined the empire. Tax was levied only on primary products, most heavily on agricultural items. The simplification of the system to one type of tax may have reduced income, but its long-term effect was to abolish tribute from the subject population in areas ruled directly by Mongols and poll tax from the army. Instead, a uniform tax structure was created which was applicable to everyone. Tribute was discarded because it required assessment in a local manner; each area had its own method for deciding who would pay how much and how it would be calculated. By its nature, tribute was a single payment to an overlord, which kept the community's own identity intact. As a result, there would have been various and confusing indigenous systems of accounting rather than a uniform, central system. In the same *quriltai*, the poll tax was also dropped perhaps because the army no longer lived on the spoils of war but was settling down in the regions of conquest. An agricultural-herd tax in-kind was much more suitable to the quieter times.

Therefore, in 634 H, Kirgiz began to implement the decisions of the *quriltai* when he became governor of Khurasan. He expanded the revenue base and refounded several cities. Soon, he was ready to revise the tax on produce to one on heads, not strictly following the 632 H *quriltai*, extending it beyond the Mongols themselves to the local population. However, the revolutionary aspects of the tax programme inspired intrigue at the top level and was not resolved for two years.

The situation was clarified in 636 H when the third province was extended from Khurasan to as far west as the army had penetrated below the Black Sea. Kirgiz's main efforts were expended on organizing the new territories; therefore, the major part of his Khurasani bureaucrats, headed by Nizam al-Din, went to Arran to improve Mongol administration. Under Chormaghun, it had existed only in areas containing the most Mongols, not in the large cities of Iran. The transfer of attention to cities meant a full realization of Kirgiz's earlier efforts of 634 H. First, there was a coinage for a flat poll tax on the army and then one for the first trade tax. Further, in 638 H, Kirgiz established a permanent seat in Tus for himself and his wealth and, in 639 H, a regional one at Ganja. By the time of his death in 640 H, he had produced money for every type of tax the Mongols used throughout their reign. During his period of control, money reflected the source of imperial

revenue: it had been monetary tribute in 630 H, primary production rather than money in 632 H and then two forms of labour tax, first a head one in 637 H and then a commercial levy in late 638 through 640 H. As remarkable as his career was, it seems incongruous that *hubris* brought Kirgiz to such a sudden and ignoble end.

Notes

1 *Ogedai* means "reciprocal generosity". It is a noun of the commutative case from the verb *og*, "to give". The name inspired Juvayn to spend five chapters on him, one completely dedicated to tales of the khan's legendary beneficence.
2 Juvaini, 189–90.
3 *Ibid.*, 62 and 274, ft. 7.
4 Barthold, *Turkistan*, 465.
5 Thomas T. Allsen, "The rise of the Mongolian empire and Mongolian rule in north China", *The Alien Regimes and Border States, 907–1368*, Vol. 6, *The Cambridge History of China* (Cambridge, 1994), 321–413; 374.
6 Elizabeth Endicott-West, "The Yuan Government and Society", *The Alien Regimes and Border States, 907–1368*, Vol. 6, *The Cambridge History of China* (Cambridge, 1994), 587–615; 588.
7 Juvayni rhapsodised over Ogedai's liberality of gifts to his people, especially when a caravan arrived as in Chapter XXXIII, "On the deeds and actions of Qa'an", 201–35. "Being by nature extravagantly bountiful and liberal he gave away everything that came in from the farthest and nearest parts of the Empire without it being registered by accountant or inspector", 202. Juvayni does not mention this trait for any other ruler except as required during ceremonies, so Ogedai seems to have maximised the policy of exhibiting and sharing his wealth to keep the allegiance of his people.
8 *Chin Temur* means 'firm iron'.
9 *Ibid.*, 88–90.
10 *Ibid.*, 88, ft. 7.
11 *Ibid.*, 483. The spelling *Chormaghun* follows Boyle's translation of Juvayni.
12 The territory north of the mountains around Nisa; V. V. Barthold, *Four Studies on the History of Central Asia*, Vol. 3, *A History of the Turkman People*, trans. V. and T. Minorsky (Leiden, 1962), 123, ft. 3.
13 Juvaini, 483.
14 *Ibid.*, 532.
15 *Ibid.*, 534.
16 Sharaf al-Din.
17 Juvaini, 534.
18 *Ibid.*, 483.
19 *Ibid.*, 485.
20 Nevertheless, the Armenian source considered Chormaghun the savoir of the situation since he counselled that raiding activity should cease for steady taxation; Grigor of Akhan^c, *History of the Nation of the Archers*, Harvard-Yen Ching Institute (Cambridge, MA, 1954), 31, 33.
21 Howorth, 21.
22 Grigor, 29. Later, Grigor stated that the Armenians and Georgians were ordered to pay *tzqu*, *mal*, *t'aqar* and *qubchur*, all of which the author considered to be tribute according to the line attributed to Chormaghun, "those, however, who do not submit to our command or give us tribute ...," 33. Although Grigor did not provide a date, this information probably applied to 632 H and was quite a mish-mash of a taxation policy.
23 Howorth, 21.
24 Juvaini, 199. *Batu* means "stalwart, of firm resolve".
25 Khabudjama is now known as ḥajjilar. It produced much silk and had excellent fields and vineyards; Rabino, 84.
26 Juvaini, 486.
27 *Ibid.*, 487.
28 Juvayni did not report the nature of this administration even though his father had been one of the honoured notables released from Tus. Nevertheless, the unique status of Naysabur is reflected in the opportunity for promotion.
29 *Ibid.*, 487.
30 The decoration above *ilāh* as well as the same calligraphy of the 620 H Samarqand gold coinage appeared on the reverse of the new issues.
31 The name is the equivalent of "George" and can be spelled a variety of ways; Paul Pelliot, "Récherches sur les Chrétiens d'Asie Centrale et d'Extrême-Orient", *Ouvres posthume de Paul Pellio* IV (Paris, 1973).
32 British Museum 1991.6.2.1; 2.29 grams.
33 Steve Album, private collection: 3.44 grams. Davidovitch does not report this type for Samarqand but only for Bukhara, Group 7, p. 13.
34 Davidovitch, Group 7, p. 13.
35 American Numismatic Society 1990. 27.1; 3.60 grams.
36 Steve Album, private collection; 4.03 grams, the only coin known. On the obverse, the mint was written vertically on the left and bottom and probably also on the right (off the flan). On the reverse, the mint also appeared vertically on the left and probably on the right (off the flan). An intricate arabesque was at the top of the obverse and the bottom of the reverse field.
37 As remarked upon already, Juvayni details Tolui's campaign in Khurasan and the Mongol sacking and massacre of Naysabur. It seems, however, that his statement 'in order to avenge Toghachar it was commanded that the town should be laid waste in such a manner that the site could be ploughed upon', 177, was not acted upon and that Naysabur was still an important centre.
38 American Numismatic Society 1990.19.3; 1.93 grams.
39 Sotheby Auction Catalogue, June 1987, Lot 924; 4.16 grams.
40 Steve Album, private collection; 2.89 grams.
41 American Numismatic Society 79.162.3; 8.42 grams.
42 Dar al-Kutub (Cairo) 3770; 2.44 grams.
43 American Numismatic Society 22.211.297; 3.21 grams, with loop attached. This specimen is the best preserved one found for this study. It has *both* the date and mint as well as beautiful and balanced calligraphy with the special *'ayn*.
44 Steve Album, private collection; 2.00 grams.
45 Juvaini, 30. n. 2 quoting M. Minovi and V. Minorsky, "Nāṣr al-Dīn Tusī on Finance", *Bulletin of the School of Oriental and African Studies* 10 (1939–42), 755–89; 783–4, states that the term was applied to irregular levies. This is not the case as the rest of this study will make clear.
46 Barthold, *Turkistan*, 465–6.
47 Grigor, 31, 33, who reverses the order of the appointment and the tax assessment.
48 Buell, "Chinqtai".
49 Howarth, 36.
50 This theory of the tax base seems to have been consistently reinforced. For example, when 'Ata' Malik Juvayni became governor of Baghdad, he was instructed to abolish the Muslim inheritance and other non-Mongol taxes; Juvaini, 34.
51 Juvaini, 488.

52 *Ibid.*, 534.
53 He and Shigi Qutuqu shared much of this responsibility.
54 Buell, "Chinqtai".
55 Juvaini, 492–3.
56 *Ibid.*, 493.
57 *Ibid.*, 489.
58 *Ibid.*, 491.
59 *Ibid.*
60 *Ibid.*, 493
61 *Ibid.*
62 For example, Chingiz Khan lived under such close supervision, sleeping and eating in his captors' tent, after one of the encounters in his youth; *Secret History*, 26.
63 Juvaini, 537. He had already been part of the financial administration under Chin Temur and had represented Greater Khurasan at court, 493.
64 *Ibid.*, 495–8.
65 *Ibid.*, 498.
66 *Ibid.*, 108–11.
67 Barthold, *Turkistan*, 470–1; Buell, "Sino-Khitan", 144–5.
68 Thomas T. Allsen, "Mas'ud Bag", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*, ed. Igor de Rachewiltz (Wiesbaden, 1993), 128–9.
69 *Ibid.*, 129.
70 *Ibid.*, 129.
71 Juvaini, 499.
72 *Ibid.*, 500.
73 Davidovitch, Group 3, 11.
74 J. Watt and A Wardell, *When Silk was Gold: Central Asian and Chinese Textiles* (New York, 1997), chapters 3 and 4 for the Mongol period. Also Thomas T. Allsen, chapters 2, "Consumption and use", and 3, "Acquisition and production", *Commodity and Exchange in the Mongol Empire* (Cambridge, 1997).
75 Juvaini, 500.
76 *Ibid.*, 506.
77 *Ibid.*, 501.
78 Grigor, 35.
79 A later traveller, William of Rubruck, claimed that Ganja was the Khwarazmian capital; Willem van Ruysbroeck, *The Mission of William of Rubruck: His Journey to the Court of the Great Khan Möngke 1253–1255*, trans. Peter Jackson, the Hakluyt Society, second series, no. 173 (London, 1990), 262. However, he never mentioned Tabriz in his report even though, at the time of his trip, Tabriz had just been made the Mongol administrative centre. William either did not know or did not believe it had once been Jalal al-Din's capital. It was probably after Jalal al-Din's death, when the Mongols put the Ildigizids back in control of Tabriz, that the Khwarazmians had settled in Ganja.
80 Juvaini, 501.
81 American Numismatic Society 22.999.56; 2.70 grams.
82 Steve Album, private collection; 1.24 grams. It is a half unit.
83 G. Antiker Kunst Catalogue 369, December. 1987; 2.45 grams.
84 Ashmolean Museum 2; 2.66 grams. Steve Album, private collection; 2.52 grams. Pakamov, 278–9.
85 There is no apparent reason for the Kurriman coinage to be the prototype for the seminal issues of Iran. One speculation, however, concerns the general, Dorbei Doqshin. He had been sent to capture Jalal al-Din in Sind. As reported by Juzjanī, 297, who renders the name Tūrtī, he joined Jalal al-Din later; Jackson, "Jalal al-Din", 50. If so, he would have gone to Adharbayjan. At the death of Jalal al-Din, Ogedai may have lifted Chingiz Khan's ban on Dorbei Doqshin, who would have then been able to honourably present himself to the general, Chormaghun. Nine years later, Nizam al-Din may have found him in the general's retinue. Although this is one explanation for the adoption of the Kurriman type in Chormaghun's territory, there is no textual documentation to that effect; and the curiosity of the inscription remains unexplained.

86 Ashmolean Museum 4; 2.87 grams. Only the decade is legible on this particular specimen.
87 American Numismatic Society 59.165.75; 2.77 grams.
88 For the subjects, standard terms of capitulation still applied, namely succour to any passing Mongol contingent and supplies of grain, meat and wine as well as fighters when needed.
89 For example, Allsen notes specifically the golden bow as a symbol of legitimacy among the Huns; *Commodities*, 66.
90 Juvaini, 192.
91 George C. Miles, *The Numismatic History of Rayy*, Numismatic Studies No. 2 (New York, 1958), 196.
92 Nicholas M. Lowick, "Saljuq Coins", *The Numismatic Chronicle*, seventh series, 10 (1970), 241–51; 241.
93 "The *Dīwan al-Ṭughrā'*, which eventually incorporated the *Dīwan al-Inshā'*, or chancery, was an institution introduced by the Seljuqs. The *ṭughrā'* seems to have been the bow and arrow adopted by the Turks as their seal and symbol of sovereignty;" Carla L. Klausner, *The Seljuk Vezirate: A Study of Civil Administration, 1055–1194*, Harvard Middle Eastern Monographs XXII (Cambridge, MA, 1973), 17.
94 According to the dynastic history, *Maliknama*, probably written for Sultan Alp Arslan; Bosworth, "Political and Dynastic History", 17.
95 Koumjian, "Numismatic History", 123–4. For the trident, see the coins of Qizil Arslan b. Ildigizid and al-Nasir, no mint or date, no. 29, p. 330. In popular culture today in Mongolia, the trident is considered Chingiz Khan's symbol.
96 Grigor, 43.
97 Judith Kolbas, "Developments in Jazīran Pictorial Coinage", *The Numismatic Chronicle* 158 (1998), 259–85.
98 See also the Tabriz 687 H Falcon–Sun coinage, *infra*, Chapter Eight.
99 Juvaini, 501.
100 *Ibid.*, 503; and Bertold Spuler, *History of the Mongols: Based on Eastern and Western Accounts of the Thirteenth and Fourteenth Centuries*, trans. Helga and Stuart Drummond (Berkeley, CA, 1972), 161–2.
101 British Museum 1953.3.3.1; 1.36 grams, gold. The obverse has the short *shahada* with *Muḥammad* taking the middle line as the 638 H Tiflis inscription. The reverse gave only *ḍarb-i Ṭūs* without *Qā'ān*, following the Ardabil reverse legends, which also omitted the ruler. It is not clear if this type belongs to the Mongol period or not since there is no date or title, but the affinity to issues in Adharbayjan suggest that it does.
102 Steve Album, private collection; 1.32 grams.
103 Tubingen pre-publication list 94-9-47; 2.75 grams. The reverse read *Balkh/Qā'ān al-'Ādil/al-Ā'ẓam* with the date of *sana arba'īn*/'year forty' on the right.
104 A parallel development occurred during medieval times in England since the customs duty was the king's major source of income.
105 Juvaini, 511. *Mengu-Bolad*, according to Juvayni, meant 'eternal iron'; but the transliteration suggests that it meant rather 'iron-coloured mole'.
106 British Museum 1933.4.15.10; 2.42 grams.

107 On both sides, the line separating the marginal legend from the field was linear like the coinage from Tiflis of the same date. The next Tabriz issue, dated 639 H, had a dotted circle around the field which, therefore, also corresponded to the Tiflis margin from 639 H.
108 British Museum 1933.4.15.97; 2.82 grams. Another coin has been read by Steve Album as having the date of 636 H (Tubingen pre-publication list GA2 C2; 2.90 grams), but the marginal inscription is so crudely inscribed that his reading is not secure. Rather, the marginal circle is dotted, which suggests that the date is 639 H, the style copied by all mints issuing that year.
109 *Ortaq* means "together" in Uighur to this day. Also see Juvaini, 209, n.18.
110 Thomas T. Allsen, "Mongol Princes and Their Merchant Partners, 1200–1260", *Asia Major*, third series, Vol. 2 (1989), 83–126.
111 British Museum 1885.8.5.55; 2.56 grams.
112 For the Amirs of Ahar, see Lane-Poole, Vol. 2, pl. XII, #689 for British Museum 51.58.99; 16.63 grams, and also British Museum 1969.5.12.79; 15.64 grams.
113 Grigor, 35.
114 British Museum OR 2753; 2.85 grams. The date is off the flan; but the margin has a dotted circle, signalling 639 H.
115 British Museum 1933.4.15.96; 2.13 grams. There are several renditions of the spelling of this town, and it is not clear if other mints also produced in this year. All have extremely awkward calligraphy.
116 British Museum OR 2574; 2.82 grams.
117 Earlier in the third/ninth century, according to Yakut, the pronunciation of the town's name used to be *Tibrīz*. A Turkish dialect produced *Tabrīz*; *Encyclopaedia of Islam*, "Tabriz".
118 However, it is not clear if 2.83 grams was a standard used by the early Ayyubids. Although the dynasty had reintroduced silver coinage into the Jazira in the previous century, the geographically patchwork nature of the empire might have allowed a variety of local weights. Unfortunately, the best source of information, Balog's *Ayyubids*, does not provide enough weights to determine standards.
119 Judith Kolbas, "The Sar-i Pol Hoard. (Ashmolean Museum)", paper given at the Tenth International Numismatic Congress (London, 1986). The division of the mithqal, however, did follow Baghdad since Irbil struck at seven-tenths of the standard. Baghdad was on the lower mithqal of 4.125 grams.
120 Samuel Gellens, *The ʿAbbasid Mint of al-ʿAbbasiya*, Summer Seminar Report, The American Numismatic Society (New York, 1980). See also Nahidah Abdul-Razzaq Daftar. "The ʿAbbasud Coinage of Madinat al-Salam from 146/763 to 218/833." PhD. diss., The School of Oriental and African Studies, University of London. (London, December 1978.)
121 Reports of mature contact appear by 642 H when Arhgun Aqa is governor in Adharbayjan. "The Sultans of Rum, Syria and Aleppo sent ambassadors to him and sought his protection and favour; and he dispatched *elchis* to those parts to secure the payment of tribute"; Juvaini, 508.
122 Juvaini, 200.
123 *Ibid.*, 255, 272.
124 *Ibid.*, 504–5.
125 *Ibid*, 505–6.
126 *Ibid.*, 507.
127 *Ibid.*, 255.

5

ARGHUN AQA

Fundamental shifts in imperial power

Arghun Aqa, 641–73 H

As another practical genius of his time, Arghun Aqa was the person who shaped Greater Iran the most in the middle period of Mongol rule. He had his finger on the pulse of every major event for the next thirty-two years because he combined military, financial and, above all, political acumen. His administrative decisions were fundamental for long-term development, but equally his policies were flexible enough to meet immediate and transient situations. Mongol power in Greater Iran cannot be understood without appreciating his immense role in establishing it.

Imperial political background

In 641 H, the new civilian governor, Arghun Aqa,[1] arrived in Tus with his chief administrator, Sharaf al-Din, whom he had re-instated as head of finances. Starting in Khurasan and Mazandaran, Sharaf al-Din assessed that the regions owed 4,000 gold *balish* in back taxes.[2] Neither *balish*, the normal means of payment in the steppe, nor coins had been struck in Khurasan for ten years. Nevertheless, in spite of the assessment, the territorial vastness and the economic potential of the area, the two officials left almost immediately for ʿIraqi ʿAjam and Adharbayjan, leaving behind imperial secretaries under the tutelage of Nizam al-Din to collect the arrears as best they could.[3] When the two had travelled only as far as Dhihistan and Mazandaran, Sharaf al-Din needed to leave on an urgent matter of defending himself against a plot at Batu's court. Arghun proceeded to Tabriz on his own, but his tacit support for his tax collector helped Sharaf al-Din win his case.[4]

Once the governor reached his destination, his major task was to reassert imperial authority; much of the countryside had returned, of necessity, to the control of the military during this period. In addition, he received embassies over the next couple of years from the Ayyubids of both Damascus and Aleppo[5] as well as from new vassals, the Saljuqs of Rum and Cllician Armenia.[6] They all submitted to Mongol hegemony and to heavy yearly tribute.

Arghun had a civilian role, but he gave the new general great powers. In 641 H, Baiju took command of the armies in the west[7] and was successful in subduing Anatolia that year. The sultan's capitulation terms were to pay annually 12,000,000

hyperpera or local silver coins, 500 pieces of silk, 500 camels and 5,000 sheep, which were to be transported free of charge to the khan's court. Besides this tribute, the sultan was to distribute to local Mongol dignitaries a sum equal in value.[8] With the conquest of the Rum Saljuqs, the Mongols had the largest country in the region under their control. The event had a domino effect as many other regimes began to submit, all of which Arghun treated within the same general framework. To start, the military did not concern itself with monetary matters. Instead, tribute in all its forms was organized by local rulers. They issued their own coinage, which did not require acknowledgment of the Mongols, a situation that was generous in terms of Islamic practice. The dynasties kept some dignity and their identity by preserving their titular ruler and paying in their own money. This policy in Rum remained in force for fifty-seven years until 698 H. However at this point, the Saljuqs dropped their flamboyant lion and sun emblems on the coinage and reverted to a previous style that had no images. Nevertheless, the weight of their single unit silver coin throughout all these political upheavals remained the same at 17 carats of the 4.125-gram mithqal or 2.92 grams.

During the same hectic period, the Mongols had besieged Tiflis once again. They had lost control of Gurjistan after the military had been restructured. Since Georgia had not been included in the programme of Kirgiz's *ʿAmara hā* Bow coinage, it had probably separated in 638 H. It resubmitted to the Mongols in 642 H after strenuous fighting. Although subdued for a time, the Georgian nobles were about to launch a revolt until it was foiled by Arghun. Their defence was that they were meeting to arrange their payments for the tribute.[9] Not fooled, Arghun forced them to accept an additional and more compliant local ruler. Earlier, the politically motivated marriage of the Georgian queen and Saljuq prince had produced a son, David, and a daughter. The latter had married back into the Saljuq line controlling Arzan al-Rum. The two children also had an illegitimate Georgian half-brother, again named David, who had been sent to his sister for safekeeping. Lacking sisterly love, she had imprisoned him in her town; but the Mongols released this David at the time Baiju's men conquered Rum. David had no power base, so Arghun safely established him as a co-ruler with the legitimate David to run Gurjistan. The joint control presumably weakened the influence of either one of them, putting at odds any factions rallying around these figureheads.

In 642 H/1244 AD, Baiju started to launch a number of major forays as his contingents moved south to threaten Ayyubid territory, making attacks via Mardin, Mayafarraqin and Urfa to the proximity of Aleppo. The Ayyubid ruler of Aleppo, al-Malik al-Nasir, made conciliatory gestures but did not succumb to the Mongols until 658 H. On the return of the groups to eastern Anatolia, Baiju ordered the restoration of Arzan al-Rum. Then later in 642 H/1245 AD, the Mongols took over the districts north of Lake Van around Khilat and re-introduced the local Ayyubid dynasts. To try to forestall such havoc in his territory, the new ruler of Damascus, al-Malik al-Salih Najm al-Din, in 643 H, asked Badr al-Din Lu'lu' of al-Mawsil to conduct treaty negotiations with Arghun. The terms included tribute of ten dirhams per head for the richest, five for those of middle income and one

for the poor.[10] Since this format did not follow the normal practice of a lump sum payment but a poll tax, which agreed with Sharaf al-Din's approach, it seems to have represented Mongol suzerainty over taxes.

In this scramble, Arghun could hardly keep up with Baiju. The general's successes were instrumental because Arghun did not have the authority of a great khan behind him. Ogedai's son was not enthroned for three more years until 644 H. The power and co-operation of Baiju allowed Arghun to perform remarkably well on the diplomatic fronts and to organize vast sums of financial support. However, income was almost all in the form of tribute. In the third province, which he directly controlled, he could not advance further because neither his finance minister nor Kirgiz's former deputy, Nizam al-Din, was with him yet. As a result, there was no Mongol coinage for 641 H, which, in retrospect, had more significance than the governor's preoccupation with other urgent matters. Instead, the hiatus was the first occurrence of a practice that was to become common under the Mongols: whenever there was no coinage for a year or more, a major change was about to take place. In this case, three reforms were developing, those of type, weight and production sites. On the other hand, the system retained the metal, unit and purpose of the previous money.

Tribute from Gurjistan

In Rum in 642 H, the Saljuqs issued a new coinage, which was an independent currency for paying tribute. In the same year, Gurjistan produced a brief semi-independent coinage as a form of tribute, undoubtedly influenced by the treatment of the Rum Saljuqs. From this point, the Georgians had a special position in the Mongol Empire. Their successful disengagement earlier from the Mongols and long-standing alliance with the Saljuqs always gave them a strong diplomatic base which never made them fully subservient for long. Part of their strength also came, as numismatic evidence shows, from their complex role as the intermediary and often buffer between the Mongol *uluses* north and south of the Caucuses as well as between the prestigious Rum Saljuqs and the conquered minor dynasties of Adharbayjan. On the other hand, the Mongols never granted them full independent self-rule with vassal status. Their vacillating relationship was normally mirrored on their coinage: they often managed to identify their ruler, a clue to a vassal position, and still give a sign of submission to the Mongols. The combinations of insignia for tolerable independence, semi-independence or full dependence was most unusual in the empire, providing an important barometer of Mongol political control in Greater Iran and relations with the northern steppes. With tight central policy, the Georgians often had to comply completely with Mongol suzerainty and issue the imperial coin type. With Mongol disunity or policy shifts, the Georgians had their own minting policy. The difficult and sometimes intransigent Georgians were, nevertheless, the first territory to mint under Arghun's new central administration. Apparently, Nizam al-Din's fiscal priority was to put them once more on the tax register.

Although the Georgian issue was a transitional one, it did announce the governor's policy. The emerging coinage had the same purpose as the last series directed by Kirgiz, namely to pay customs duty on trade. Both the choice of location for the mint and the inscription indicated this role. A new copper type came from Dmanisi, a town a hundred kilometres southwest of Tiflis and a major commercial centre in the Kartli region on the route to Saljuq territory. As such a centre, its position was comparable to Dunaysir for the Artuqids. That dynasty had also chosen a commercial site rather than the seat of government for producing coinage.

The obverse of the Georgian copper type took its inspiration from the reverse of the last Arrani silver Bow coinage. The new coin only added the Persian word *shahr*/"city" at the top of the field above the mint. Next came the same Arabic *ʿAmara hā Āllāh*. At the bottom of the field was the hijra date of 642 written in Arabic script. The reverse, on the other hand, held the main message and showed that, although the policy was the same, the political status of the Georgians was not. They now enjoyed vassal status exercised under large overtones of their masters. The new type signalled that unique position and recognized their cultural and ethnic individuality. In the field, the inscription had *Qā'ān* at the top, the only part borrowed from the previous type. Below it ran a florid Persian phrase which said that the *Band-i Shāh-i/Jahān* or "the Servant of the Lord of the World" was the Georgian ruler, *Dā'ūd Malik* or "King David". His royal monogram appeared in the centre of the coin just before his name.[11] Further, the inscription had the Georgian date according to that calendar in Georgian letters.[12] This unique 642 H issue, which specifically stated the ruler's name along with a title, was the basis for all later semi-independent coinages of the atabags of Shiraz, Kirman, Yazd, Hurmuz, the Artuqids of Mardin and Badr al-Din Lu'lu' of al-Mawsil. Although this coinage was a small and ephemeral issue of copper, it set an impressive and lasting precedent for Mongol currency and financial policy toward local rulers.

Customs duty: Horseman coinage, 642–6 H

However, the Georgian copper was but a transition to the new central Mongol system. From late 642–6 H, Mongol coinage presented a dramatic change in design, took a different mithqal for its weight system and moved minting sites from those used in the former series. Nevertheless, in spite of these radical actions, Arghun was continuing the basic policies of his old rival, Kirgiz: Mongol money was silver, only, which made it a mono-metallic currency; it had a single denomination, which weighed two-thirds of the mithqal of choice; it was issued from a chief mint and its subsidiaries, all located in Arran; and the purpose was to foster and tax trade. These points suggest that he relied heavily on Nizam al-Din and his Khurasani secretaries.

The monetary impact of the 642 H reform was trumpeted visually on the silver by a completely new reverse design. Not only did the legends change but the image did as well with the transference of the visual symbol of political power from the bow to a mounted archer. In the centre of the field, a horse galloped left

while its rider turned backwards to shoot right, sometimes at an animal. A short, simple inscription arched above them in the Mongolian language but written in Arabic script. It read *Ūlūgh Mūnqūl ulūsh nyk*/"One great Mongol nation".[13] There were several dies, all well executed with clear spelling and pointed letters, produced by a team consisting of a skilled artisan, an excellent engraver and someone who knew how to transliterate properly. The obverse contained in a dotted circle the short *kalima* with the margin citing the mint and date, starting at the top and going counter-clockwise around the whole edge, as illustrated in Plate 5.1.

In his first year of designing the reverse of the Horseman type, the draughtsman took the theme of a hunting tableau; and he quickly developed unique features to distinguish different mints. For Ganja, he had the archer shooting at an ethereal dragon formed by a will-of-the-wisp long curl with a triangular head. Below the horse, he placed a branch representing a thicket, from which the hunter had flushed the auspicious sign, a heroic theme much loved by later Persian painters. Tiflis had the Mongol aiming at a stork, the bird alighting in the area during the spring and autumn migrations, while a saluki sight hound ran alongside the horse. Nakhchavan had the archer shooting at a laughing dragon whose long, entwined body squirmed delightfully below the horse. These complicated designs became simplified on the next series, which appeared at the end of the same year. In that design, the object to be shot was eliminated at all mints; only the saluki remained on the Tiflis coinage.

The rider was undoubtedly a Mongol, reinforcing the stark inscription above. Well-preserved specimens exhibit clear features, attire and proper equipment. On some dies, the Mongol wore a low conical hat with great ear-flaps and a long tail of material or streamers at its base similar to the headpiece seen today on the rider in the national emblem of Mongolia. Other dies show a thick line starting at the forehead, lengthening above and over the head, and ending in a long flip beyond. This was probably a rendition of the hair hidden by the previous cap. A contemporary described the hair style:

Obverse Reverse

Plate 5.1 Horseman type (Nakhchavan) (Date: 642 H; weight: 2.87 grams; metal: silver)
Source: By permission of S. Album. Double actual size.

> The men shave a square on the top of the head, and from the two front corners from both sides of the head down to the temples. They also shave the temples, up the neck to the top of the cervical cavity, and in front the forehead up to the crown, on which they leave a tuft of hair hanging down to the eyebrows. At the rear corners they leave the hair of the head, and make it into plaits, which they braid up round to the ears.[14]

The coins somewhat contradict Juvayni's description: either the front tuft on the coins had been left to grow much longer or had been combined with the long plaits.

The rider's costume included a tight fitting, long-sleeved tunic and loose trousers, which ended about calf-length in boots. Stirrups provided support for the archer. By partially straightening his legs, the rider probably rose slightly off the horse, which steadied his aim. The saddle had no visible pommel or cantle and was generally one of two types, that with no fenders or with round ones. Of the latter, there were again two types with either short or long fenders. The most conspicuous saddle on coins and in illuminations was the one with large fenders stretching as low as the stirrups.[15] The arrows of the archer had a number of variations as well. One kind sported a bifurcated point for stunning prey, not for killing enemies.[16] The archer usually held the horse's reins in his right hand, i.e. the one pulling the bow-string, and carried a mace at his waist. These small details satisfy a curiosity about the reality of the famed warrior. However, they must be subordinated to larger aspects of his life, which were also depicted in the scene. In fact, the designer carefully drew a total picture with a full appreciation of the importance of major components of the culture, namely the horse, the rider's skill and the animals of the hunt.

One of these animals was the dragon, chosen by two Turkish mints for a particular statement. It was a heavenly messenger that proclaimed that the Mongols were endowed by *Tinger* or "Heaven" to extend their nation as far as they could ride. By using such a powerful image in a land of epigraphic messages, Arghun began his strong Mongol administration in the region.

The Horseman type announced that commercial interest had switched from the Jazira to Anatolia. The clue is that Nizam al-Din dropped Mardin's weight and adopted the mithqal of the Rum Saljuqs, that of 4.125 grams. He did not, however, change the unit coin of the local region or the accounting system, leaving the coin at 16 carats or two-thirds of the mithqal. The lower mithqal meant a lower individual coin weight, which put the new coin below the Saljuq money by a carat and also made it less than the Prosperity coinage, going from 2.83 to 2.75 grams. The Horseman coinage also had a wide tolerance of one and a half carats, ranging from 2.63 to 2.87 grams, which allowed market transactions in large purses to include old coins from Georgia in the north and Tabriz in the south. With this adjustment, Nizam al-Din set the stage for massive economic growth.

The new weight signified that the conquerors of the Saljuqs probably forced trade to move away from Artuqid to Mongol territory in the north. To help divert

the commerce in 642 H, the Mongols ensured that the semi-desert route was subjected to some insecurity with a number of incursions, even reaching the outskirts of Mayafarraqin and Aleppo, as mentioned, but then generally withdrawing to Anatolia.[17] Therefore, the new coinage arrangement was not just a symbolic reflection of conquest but also expressed a symbiotic relationship between the Saljuqs and Mongols. They both benefited from being partners in trade rather than being enemies at war. With the same mithqal and shortly the same coin weight, both groups of merchants had easier commercial transactions and profit calculations. This emphasis on compatibility shows that trade was being pushed to the west through the Nakhchavan region to the Lake Van area and beyond.

For a short period at the beginning of the new endeavour, Ganja held on to its post as Mongol headquarters by serving as a link between the Bow and Horseman systems. The diwan had struck there in 639 H, taken some of the dies to Qarabagh in 640 H and then made new ones there. Having completed its task, the diwan had apparently returned to its headquarters at Ganja and stayed there after Kirgiz's downfall. This return allowed Nizam al-Din to locate one of the engravers of the Prosperity coinage and order him to make a new die.[18] The Ganja calligraphic style, in particular a distinctive left extension of the top of the last *lām* in the top *Āllāh*, connects the Prosperity and Horseman types. The craftsman who had executed the earlier die had worked only in Ganja and only in 639 H but, even then, briefly since other styles predominated in the Bow coinage.

Ganja seems, consequently, to have founded the new type in 642 H, which suggests that the diwan did not have a standing workforce but recruited skills as needed from local craftsmen. They, in turn, did not have long-term contracts. The intermittent work is the first clear indication of the manufacturing policy favoured by Arghun, one that was periodic rather than steady. Such a fluid pool of manpower noticeable among the engravers may also have characterized the forgers and strikers. It was a lean system that forced Nizam al-Din at this point to delegate most of his scarce resources to the design of the reverse. In contrast to the obverse, it was executed carefully and with much thought, as noted above.

As the capital of Arran, Ganja not only harboured the financial officials but also held the geographic mid-point between the other two administrative regions. Since the city was well located, the diwan would have stayed in the seat, happily and permanently, except that it needed to thoroughly re-enrol Gurjistan into Mongol central policy. Therefore, after the initial Georgian semi-independent copper coinage, Tiflis was taken over by the bureaucrats from Ganja. Then once Nizam al-Din had finished his task in Tiflis, he moved to Nakhchavan in early 642 H. He brought the Tiflis core hub with him, changing only the mint name on the obverse and keeping the same reverse.[19] Then a new one was made for the city; a smiling dragon writhed under the horse, but its head rose to the rear of the horse with an arrow through its mouth.[20] Then the diwan started its second round. The design distinguished this next group by removing the hunted animal, so that the archer shot at nothing. The diwan returned to Ganja; the obverse now stating *Ganjah* with the date of 642 H.[21] Then, the agent moved back to Nakhchavan, in which

just a branch lay below the horse. The next type had an intermediate style with the branch of Nakhchavan turned into an arabesque and the bifurcated arrow of Tiflis.[22] Finally, the diwan returned to Tiflis.[23] Simultaneously, the Tabriz *basqaq*, Mengu-Bolad, was entrusted to follow the policy on his own since he did not have access to the same resources. The *basqaq* had a different vision, and his engraver created an archer who stood rather than rode.[24] He also did not have forgers but simply re-stamped Saljuq money, producing a half unit series. All these events in Ganja, Tiflis, Nakhchavan and Tabriz occurred rapidly in 642 H. The government was in constant motion inaugurating its policy and retrieving back taxes.

Poll tax: Hexagon coinage, 643 H

Probably early in 642 H, the wazir, Sharaf al-Din, was able to rejoin Arghun and planned to take over from Nizam al-Din. He was not interested in a customs levy but preferred a head tax; and for a while, the two taxes overlapped. Coming through Gurjistan, he first set up an agent in Tiflis. Then he made his headquarters in Tabriz,[25] which had paid only a rudimentary amount. His vision was to reinstate the old order, so "when Sharaf al-Din arrived in Tabriz from the *urdu* of Batu he made great exactions on the people there and elsewhere because of arrears in taxes. The Emir Arghun opposed this although Sharaf al-Din persisted".[26] Not only did Sharaf al-Din probably resent any vestige of a policy established by Kirgiz but he also seems to have been extremely conservative. He returned to Ogedai's modified form of the Mongol poll tax or *qubchur*, imposing it on everyone[27] and calculating it on the traditional weights in the various regions that had been subject to the general, Chormaghun. Sharaf al-Din preferred the Mongol method of counting heads for assuring definite sums of revenue to that of the variable returns from trade. Moreover, a precise portion of the *qubchur* was due to the imperial government whereas the *tamgha* revenues stayed in the region. Presumably, Sharaf al-Din could argue that he was looking out for the empire and its extended financial burdens. His action caused a change of coinage type, weight and site in his determination to collect proper taxes. Those he considered to be four years in arrears.

Sharaf al-Din may or may not have been able to collect his *balish* earlier in Khurasan, but he certainly acquired his taxes in Tabriz and the adjacent regions. To accomplish this, he created a complete bureaucracy with long and effective tentacles. First, he appointed "tax collectors to each of the lands for each individual province … Not enough wealth remained to be regularly collected, so a land or produce tax was organized", and the agents "should demand cash of the wealthy, since it was gold that was needed not accounts or registers".[28] Therefore, in the richer areas, he struck a new coinage.

The bureaucrat he had left behind in Tiflis issued the first type. The obverse field, now changed to contain the short Islamic *shahada* to mirror Sharaf al-Din's religious affiliation, was confined within a dotted square surrounded by a dotted circle. Although the margin of the one coin known is worn, making it undated and

mintless, the specimen can be attributed to Tiflis[29] because the next issue, exactly the same internally but with a linear square, had the mint as well as the date of 643 H.[30] The mint was at the top outside the square, and the date was arranged in the other three portions, proceeding counter-clockwise from the left. Since the border in the first year had a dotted line and in the second a solid one, the design again gave a visual signal of the date for those who could not read Arabic. Therefore, the first series was probably for a heavy poll tax in late 642 H and the second for another one in 643 H. Significantly, the reverse returned to *Qā'ān al-ʿĀdil*, going right back to the first inscription in the area. This time, however, the bow was eliminated, gone forever from Mongol symbolism. Instead, two triangles, consisting of two solid lines with pellets between them, formed a distinctive hexagon border, as illustrated in Plate 5.2. This new reverse design boldly differentiated the coinage from its predecessors, and its inscription clearly indicated its function of collecting a poll tax. Not enough coins are extant to determine whether or not Sharaf al-Din lowered the weight to 2.61 grams to fit the earlier Georgian rate of 637–8 H, but he probably did so. Although revenue was taken in the regional capitals from the local people, it was also probably still collected from the Mongols on the Mughan Steppe. This time, the tax was applied not just to the army but to everyone.

As before with the *Qā'ān al-ʿĀdil*/bow type, the minters moved to each region in turn to collect the yearly dues. After Tiflis, the agent moved south and laid a tax on Bardhaʿ,[31] which struck at the old weight. However, the agent seemed to transit this area since only one piece is known. Rather, he focused next on Tabriz, taking the same master hub of Tiflis to Tabriz in 643 H.[32] Evidence for his move is based on some distinctive calligraphic details from both mints that show the same hand, such as the *dāl* of *al-ʿĀdil* on the reverse as well as the *rā'* and *wāw* of *rasūl* on the obverses of the two mints. However, other marks resembling *tamghas* are different, and the margins vary. Tabriz struck in 643 H at the weight of its first coinage, namely 2.83 grams for the single unit. Unfortunately, the radical nature of the

Obverse Reverse

Plate 5.2 Hexagon type (Tabriz) (Date: Rajab, 650 H; weight: 2.82 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

reform created a rough ride for the city. For the first time, Tabriz was subjected to *qubchur* but had to pay it in the weight established for trade.

The coinage was about 90 per cent fine, but the variety of two weight standards created difficulties. In particular, because the silver coins of Tiflis had a lower weight than those of Tabriz, they were not worth as much individually. As a result, the system made total tax revenue more complicated for the diwan to calculate and created an exchange barrier, as though Sharaf al-Din wanted to keep Gurjistan separate from Adharbayjan. Moreover, since Sharaf al-Din's programme returned to the original calculations, requiring former weights to determine the amount owed, the arrears he assigned could not take into account payments already made with the previous two trade coinages. Sharaf al-Din probably considered those as extraordinary taxes, the type that chroniclers and central civil servants could dub extortions from merchants. If so, he too was able legally to ingratiate himself with the higher powers, especially Batu, by exacting more taxes from the local population. His new policy took effect mainly on the extreme edges of the previous monetary area. Particularly the rich Kur–Aras River watershed with the thriving towns of Qarabagh, Ganja and Nakhchavan was neglected. Thereby, he left the Mongol trading houses untaxed. Sharaf al-Din's diwan seems to have controlled financial affairs even more tightly than had Nizam al-Din's.

Although Sharaf al-Din was undoubtedly effective, it took the most part of a year for Tiflis and over a year for Tabriz to issue coins. It seems that his method was to deliver orders and then move on as a forward director to implement the programme. As a result, he soon left Tabriz to inspect the similar system he had organized for the whole realm. He first moved to Qazvin, arriving in Ramadhan of 642 H. There, a disease he had contracted in Tabriz became steadily worse; but it did not prevent him from establishing a similar poll tax "during the few days Sharaf al-Din was there".[33] However, since no coinage is known from Qazvin, the agent was not as effective in implementing the orders as those in Tiflis and Tabriz; or he may have collected a large produce tax instead. Sharaf al-Din then went to al-Rayy, at which he set up the same system and received the tax collectors reporting from Isfahan, Qum, Kashan, Hamadhan and other places.[34] None of these cities had any coinage or gave a sense of a regular taxation programme.[35] After receiving these arrears, he then sent a tax collector to Damaghan, whose inhabitants immediately turned to the Isma'ilis of Girdkuh for help.[36] Other agents went to Amul, Kabudjana, Astarabad and Abiward. Under both Muslim law and Chingiz Khan's *yasaq*, widows and orphans were not taxed; but Sharaf al-Din did not exempt them. Instead, he gathered all this money, storing it at one point in the main mosque at al-Rayy, before taking it to the khan. In Khurasan, itself, Sharaf al-Din replaced the officials headed by Nizam al-Din, those who had stayed loyal to Kirgiz during the power struggle after the 632 H *quriltai*. In particular, Sharaf al-Din put Mahmud Shah of Sabzavar in control of the region.[37] There had been an ancient quarrel between the Shi'a and Sunni Muslims respectively of Sabzavar and Isfara'in, which was exacerbated by the enmity between Nizam al-Din and Mahmud Shah. The new appointee went to Isfara'in, Jurjan, Jajarm, Jurbad and all the areas formerly

under the jurisdiction of Nizam al-Din.[38] His effectiveness is unclear because, again, there is no coinage from any of these cities.

A strong administrator, Sharaf al-Din during his final illness seems to have become obsessed with taxes according to Juvayni. Certainly, he did not limit himself to Adharbayjan but taxed the entire province for the first time. Especially in Adharbayjan, Gurjistan, 'Iraq-i 'Ajam and Khurasan, he established his own ideas and authority to form a thorough taxation structure. His strident actions suggest that a new phase of imperial control was emerging but not one based on mercantile wealth. In achieving this administration, he was counteracting Arghun's earlier reliance on the opposition camp and former officials of Kirgiz. They had focused on trade while Sharaf al-Din concentrated on internal sources of wealth. In effect, at court the position that he attained from this revenue balanced that of Arghun, which was gained from tribute. Although Sharaf al-Din preferred coins to crops, he did not take the time or was unable to organize a mint structure throughout the realm. Only in Adharbayjan was he able to build on an administration established by Khurasanis under Kirgiz.

Death of Sharaf al-Din and return to trade policy

Part of the reason Sharaf al-Din was so successful in implementing his policy was that he was completely in charge. Although two people were supposed to govern the area, up to this point, only one was there most of the time. At this date, namely 643 H, Arghun had set off to attend the *quriltai* for the election of the next imperial khan. He had appointed Juvayni's father as *sahib diwan* and deputy responsible for Adharbayjan, Gurjistan, Rum and other areas with Buqa as his Mongol *basqaq*.[39] Unexpectedly, however, Sharaf al-Din succumbed to his illness in Tus.[40] Immediately, Arghun returned to Kirgiz's capital. Further, "Arghun abolished the illegal taxes which he[41] had imposed on everybody to be collected by confiscation and swept away that innovation, but such taxes as were already collected he dispatched [to the treasury]. Then he set out for Court" again.[42] Juvayni is not clear which treasury received the wealth, whether it was located at the royal court, Batu's *urdu* or the provincial one at Tus. Certainly, Arghun availed himself of the riches to impress the rival factions in Mongolia.

The death of Sharaf al-Din allowed Nizam al-Din to emerge once again to reapply the trade tax in the frontier province. Instantly, the Horseman coinage reappeared the same year. It was an absolutely necessary move if the Mongols were to retain their recently gained position in foreign trade. Mongol coinage had played an important role in that increasing activity. At this point, it became rivalled by silver issues from Irbil and Mardin, starting in 643 H.[43] The crucial position of Mardin as a trading link had clearly been manifested in the Mongol coinage of 638 H. Now the Artuqids and Mongols were no longer partners with the creation of the Mongol–Saljuq route. Nevertheless, the general trade revival caused Mardin, which had not mined for years, to strike again. With the increase in prosperity, Irbil had also become a major trading centre. Although technically

an ʿAbbasid site, it was controlled by a local dynasty, which in 643 H acquired special privileges as the only other city to mint outside Baghdad. Later in 650 H, its independent and powerful character became even more evident. At that point, Baghdad reduced its silver unit to 2.87 grams;[44] but Irbil distanced itself by adopting a different coin design and staying at 2.92 grams. The monetary activity in Irbil and Mardin indicated that trade was burgeoning in an extensive Jaziran network. It was, therefore, fortunate that Arghun's territory finally settled down by the end of 643 H so that it could benefit from this rapidly developing international commerce.

Ildigizids re-established, 643 to mid-645 H

After the death of Sharaf al-Din, Nizam al-Din faced new problems. First, Sharaf al-Din had disrupted some of the government structure and records. Second, Arghun was in Khurasan. Further, given the importance of an imperial *quriltai*, many Mongols had probably also left for court, leaving very few people to administer the area. As a result, apparently he considered that the best way to continue any financial policy was to place it under a local umbrella.

The most plausible group for such a task was the Ildigizids. As already noted, Nusrat al-Din, the grandson of Uzbag, who had fled Tabriz before Jalal al-Din, had been hiding in Rum.[45] After its conquest, the Mongols had located him and brought him back to his patrimony. Like the Davids of Gurjistan, even though he was a puppet, he had the respect of the indigenous population in the towns. After Arghun reinstated him, the new Ildigizid regime at Nakhchavan pulled together the old trade system in late 643 H. To do so, Nusrat al-Din started with the former Horseman dies with the saluki on them from Tiflis, apparently the last place the diwan had minted. Nevertheless, Nakhchavan soon made these dies her own by placing a dot in each section of the bow of the archer.[46] Such a bow, some with dots, had often appeared on Ildigizid coins. In this way, Nusrat al-Din discreetly gave attention to the old Turkish symbol of the bow and, in particular, its special adaptation with dots that symbolized his dynasty. As a result, the reinstatement of the Ildigizid *tamgha* showed others that the region was controlled by the atabag for the Mongols. Soon, Nakhchavan made another set of new dies, which modified the horseman by putting a hare beneath the steed.[47] The group of other mints supervised by Nakhchavan also quickly adopted this type, the dies now changing only the mint name. Therefore, the third stage of this coinage had only one animal for the entire output. This type meant that all mints were united under Nakhchavan and worked within the same regional policy.

Nakhchavan was the central mint in 644 H, but the diwan travelled to other sites as well. For this study, only one coin from each of the others was found, suggesting that the mints were active for only a brief time during official tours. In 644 H, Tabriz[48] and one or two others struck although poor orthography makes it extremely difficult to identify them. Perhaps Baylaqan[49] was one of the mints since it was a leading city in the area. Then in 645 H, the diwan struck at Bardhaʿ[50]

and probably others.[51] Since Nakhchavan minted every year, it seems to have collected a yearly tax while the other sites were scheduled to pay only every other year or so. This disparity presumably meant that Nakhchavan had more active markets. The system seemed secure and ready for expansion because a fleeting copper issue followed the silver. However, it had no inscription above the rider and no mint or date on the obverse. Further, the word *Āllāh* had only one *lām*.[52] These various omissions might have been intentional so that no one could coat the coin with mercury and pass it off as silver. On the other hand, the original calligrapher may have been hastily withdrawn from the project, requiring a less-skilled individual to prepare this die. Another copper type appeared in 645 H, but the horse was walking and the rider carried a lance.[53] In general, the policy was running smoothly as the Ildigizids collected duties from the major caravansaries; nevertheless, imperial politics brought the system to an end.

Guyuk, 644–7 H

Political administration

After the much-delayed accession of Guyuk[54] as imperial khan in 644 H, Arghun started the return journey to his province. In Khurasan, he spent some time rebuilding in the spring of 644–5 H Marw and in 646 H Tus.[55] During this period, he had expanded his diwan and sent ahead the new local governor of Arran and Adharbayjan, Sadr al-Din.[56] The official had been appointed at the *quriltai*; however, Mengu-Bolad had held the position of *basqaq* over the artisans of Tabriz and been the governor of the region for many years. Not only had he been instrumental in the early years of the conquest of Khurasan and Adharbayjan but he had also received his appointment from the venerable Chormaghun. Therefore, he held his position with full legality; and he had complied with the policies of all governors subsequent to the general. Further, he had stayed in Arran, perhaps as the senior Mongol in the area, during the *quriltai*. That meeting had seen much bickering, and he seems to have lost ground to Arghun. As a result, he felt it was time to make his bid for more power. About 645 H, as Arghun slowly progressed towards Tabriz, Mengu-Bolad attached himself to Guyuk's chief administrator. From that official, he received his re-appointment as both the *basqaq* of Tabriz and the governor of Adharbayjan and Arran. He also arranged to have the Ildigizid atabag appointed as commander of the *tuman* or military corps in Tabriz and Adharbayjan. The atabag accepted his increased role, which, along with his minting privileges, put him in opposition to Arghun's new governor. Mengu-Bolad had astutely used the new financial strength of Nusrat al-Din in Nakhchavan to bolster his own position in Tabriz. Although the exact nature of the contest between Mengu-Bolad and Arghun is unclear, the *basqaq*'s actions were direct assaults on Arghun's authority. Indeed, the strength of that authority was open to question since it had been vacillating for about two years and exhibited few signs of improving. Given these facts, the *basqaq* had calculated well his challenge. Further, the disorder at court caused by the split

between the entourages of Guyuk and his mother created severe disruptions in imperial policy in the province and elsewhere, exposing to all the ruinous dichotomy in the command structure of the empire.

Bulghari control of finances

As a result of the political conflict, coinage production stopped in Arran. At the end of 645 H, Arghun managed to transfer the mint out of the hands of the Ildigizid into those running Bulghar. As the capital of the Volga area,[57] the city was under the control of the powerful and respected Batu b. Jochi (624–53 H). Arghun apparently entrusted him with preserving whatever remained of central imperial policy, not relying on Guyuk's commitments. Bulghar made its own dies for the Horseman type with a somewhat unskilled engraver, who rendered the horse rather awkwardly and managed to make the calligraphy distinctly ragged.[58] With the minting privilege, Bulghar kept the same mithqal but changed the unit. Partly for reasons of trade and partly for expediency, it started its minting by re-stamping Saljuq coins. As repeatedly shown later, this process was convenient for quickly acquiring high quality flans. Bulghar's Horseman was 2.92 grams or 17 carats rather than the substantially lower one of Nakhchavan at 2.75 grams or 16 carats of the same mithqal. The issue suggests that already the steppe was integrated with Anatolian trade. By upholding some monetary structure, Batu ensured Mongol trade activity and further enhanced his own status. A sign of his position may be reflected in the fact that during this period missions from the West began to reach the imperial khans. The Europeans first made contact with the Mongols through Italian trading ports on the Black Sea and then proceeded on secure post relay routes, almost all of them going through Batu's territory.

Finally, after settling the delicate matter of finances, Arghun counteracted Mengu-Bolad's challenge by contesting it at the khan's *urdu*. Requisitioning money that was supposed to go to court, Arghun used it instead to finance his own party's journey.[59] He sent ahead both Sadr al-Din and Nizam al-Din Shah, who were in Tabriz, and joined them soon after. All then set out for Guyuk's *urdu* to solve the dispute over the control of Adharbayjan.[60]

Hostilities between Batu and Guyuk, 645–7 H

During the preceding events, Guyuk Khan's attention had not been focused on regional affairs because he had ordered the general, Eljigedai, to begin a massive fresh military expedition. The khan considered that Arghun's chief function, like Chin Temur's before him, was to provide for the general's forces and to mop up after the main army had passed through an area. Guyuk's militaristic attitude strengthened the hand of Mengu-Bolad since the situation was a return to his original source of power. Moreover, the campaign let officials forget the central imperial treasury; all the money taken was used for military purposes. According to Juvayni:

> Upon reaching Khorasan, the Emir Arghun prepared for the provisioning of Eljigitai. Meanwhile the princes everywhere dispatched messengers and sent drafts in every direction so that the revenue for several years ahead were exhausted by these assignments, the great number of which together with the constant relay of Mongol tax-collectors and the levies and demands of Eljigitei reduced the people to indigence and the emirs, maliks and secretaries to impotence.[61]

The campaign added to the rivalry that already existed between Batu and Guyuk, one representing regional independence and the other, theoretically, central control. The animosity soon grew into almost open conflict. To ease tensions, Batu relinquished the coinage privilege; and the Horseman series terminated in 646 H. Nevertheless, the imperial khan marched against him; and only Guyuk's natural death en route in 647 H prevented warfare between the Jochid and Ogedaid *uluses*.[62] On the provincial scale meanwhile, Arghun, after providing supplies for the army, had continued with Sadr al-Din to court. Once they reached Taraz, they heard of Guyuk's death. After some delay and hesitation, in Jumada I of 647 H, they advanced again towards Qara Qorum.[63]

A brief review of the turbulent period of Guyuk's reign shows that within a year of his accession, administration had faltered. In response to the confusing events, in 645 H, the Kur–Aras region of imperial Arran and Adharbayjan reverted to vassal status and became exempt from central taxes. Arghun had given the Ildigizids financial control of the area, a practical *de facto* arrangement, that Mengu-Bolad legalized into his own governorship. The *basqaq* 's position seemed assured; however, he took no Mongol taxes after 645 H since neither he nor the Ildigizid malik issued any money. Rather, the Mongol depository was transferred to Bulghar. After one year in its new role, however, the city ceased financial operations. Nevertheless, Batu and Guyuk continued on the road to outright conflict. Pending the imminent Battle of the Titans, trade suffered; and the Adharbayjani tax system collapsed.

Provincial autonomy

During this reign, the local populations governed themselves and paid a single yearly sum of tribute or *kharaj*. This kind of tax did not require an imperial civilian administration to calculate and collect it. Only a Mongol military presence was needed, which was probably quite small but easily mobilized.

Gurjistan

The Bagratids had regrouped behind one leader and seem to have realigned themselves once again with the Rum Saljuqs. Tiflis started to issue in late 645 H a copper series, retrieving the 642 H Dmanisi *ʿAmara hā Āllāh* dies.[64] Shortly thereafter, it issued a silver coinage with a revised Horseman design. Instead of a

Mongol archer, the new image had a sedate, royal rider who carried no bow but wore a style of Byzantine crown. The date was also different: it followed the Georgian era again and appeared in Georgian letters only. Significantly, the image was on the obverse and replaced the Islamic *shahada*. Moreover, on the reverse, the Muslim/Arabic *Āllāh* was discarded for the Christian/Persian word *Khudā* in the phrase *Bi-quwwa Khudā/Dawlat-i Gūyūk/Qā'ān Banda/Dā'ūd Malik* or "By the power of God/The dominion of Guyuk/Qa'an, the servant/King David".[65] For the fifth time on any Mongol coinage, the imperial khan was named; but, rather than standing alone as with the ephemeral coinage with the name *Chingiz Khān*, the name of Guyuk was joined by that of the Georgian king. Undoubtedly, the coinage gave but lip service to the imperial khan since only David, not a Mongol, was proudly on horseback. Both the image and wording were clear statements of vassal, not imperial, status. Therefore, it is evident that the central Mongol authorities had withdrawn, perhaps by default, and allowed the local dynasty to produce its own currency. During the entire length of Mongol rule, Georgia was able to act most independently only in this short period and later in 701 H. One of the reasons the country secured its privileged position now was probably due to a partnership with the Rum Saljuqs. Soon, it attained significant advantages from this arrangement.

The Georgians were able to produce this issue so quickly because they overstruck many Saljuq coins. However, their situation was not as convenient as the Jochid one in Bulghar had been because their mithqal was not the same. At this point, Tiflis adopted a new and unusual mithqal, which produced a lower coin weight. The mithqal was not the Saljuq one of 4.125 grams but a new one of 4.30 grams. This weight system appeared mysteriously at this point for the first time in the Mongol realm, but this was by no means the last time it did so. The unique standard was added evidence of Gurjistan's special and resurgent status. However, the unit was the same as the original *qubchur* money at 14 carats for accounting purposes. The reduction from its previous 4.48-gram mithqal to the 4.30-gram one meant that the unit was lowered from 2.61 to 2.51 grams. However, once the Saljuq coins were re-stamped, they were at par with normal coins if they were used by tale and not by weight. Therefore Saljuq coinage was apparently severely undervalued. Whatever the reason for the Georgians adopting a unique mithqal for the type, they had dropped the carat number by two from the 16 of the Adharbayjani Horseman.

In another way, the change of weight reflected a concession to the Georgians that became ingrained in later Mongol policy. The Georgians usually had to pay less tax than others did. For example, during the period of the Royal Horseman, Tiflis was at 2.51 grams while the Nakhchavan and Saljuq Sivas Horsemen types, the latter to be discussed shortly, both weighed 2.75 grams. Thus, the Tiflis coin was worth 91 per cent of the more important ones. Further, in the upcoming revival of the Hexagon *qubchur* coinage, Tiflis had a standard of 2.61 grams, which again was 91 per cent of Tabriz's 2.83-gram one. Since the tax was assessed by a fixed number of coins or by tale per head, the Georgians had a better deal of almost 10

per cent. The two cases cited are not just interesting aberrations because Tiflis fell below the normal standard at other times as well. Rather, whenever possible, Tiflis exercised a similar reductionist policy.

If less tax was due, this weight conversion may have been the price for acquiring competent and loyal Georgian administrators. They had become increasingly necessary to Arghun as the political balance shifted. In the new campaign, Anatolia acquired a front-line position, over which the new Mongol general, Eljigdai, now took command. From this point, Sivas became the Mongol forward stronghold in the west, which was further illustrated by Guyuk's appointment of Qilij Arslan IV as the new ruler of central Anatolia. Once the Turk had made his way back in 646 H from exile in Mongolia, a different type of silver Horseman signalled tighter control over Rum.

Rum Saljuqs, 646 H

Arghun provided the new Mongol general his own civil servants. At least one of them was a Tiflis mint official who had gained his confidence. Some of his credentials would have been his knowledge of the area from the long association of Gurjistan with the minor Saljuq dynasty of Arzan al-Rum. With the official's migration to Sivas, the Georgian Royal Horseman series ceased. By the end of 645 H, the Tiflis style influenced the new Anatolian design on both the obverse and reverse sides. For the reverse, the Georgian first used his king as a prototype by installing the Saljuq ruler with a crown on a horse; but this time the horse exhibited a sedate, parade-show manner. Second, he identified the sultan by name. However, his Sivas design complied better with Nizam al-Din's original Horseman style since it continued the theme of the hunt by giving the king a bow. Moreover, it kept the same weight.[66] Since Rum coinage normally did not carry images, these two similar Horsemen and the timing of their production illustrate a close link between Tiflis and Sivas.

The design showed how carefully the Saljuq Dynasty had to respond to the extreme political tension in the rest of the Mongol Empire. It balanced its loyalties between the policies, personalities and retinues of both Batu and Guyuk by adopting aspects of both the Tiflis and Bulghari Horseman designs. In particular, as already noted, the new type at Sivas had a different style of horseman. He was not a Mongol, as on the series started in Nakhchavan, but was modified to present non-Mongol messages. Closer inspection shows that the rider has a steppe bow shooting to the right, as in the original design, and a bifurcated arrow, the sort identified with Tiflis. However, in contrast, the horse walked right, instead of galloping left, so that the renowned Mongol tactic of shooting backwards was discarded; and the rider wore a crown,[67] specifically the conical Turkish kind.[68] Equally telling, the inscription did not follow any Mongol precepts. The name of the Saljuq dynastic ruler with the title *sulṭān ʿaẓam* appeared on this Mongol coinage without any comment whatsoever about the great khan, following the established prerogative of the Rum Saljuqs. Rather, the inscription rendered homage to the current caliph,

al-Mutansim bi-llah. Thus, the conjoined Horseman type meant that central and eastern Anatolia continued its tribute payments and perhaps collected that money through trade duties.

Therefore, the Ildigizids, Bagratids and Saljuqs each had a unique organization within a general financial policy during this extended period. Under Guyuk, these various regions gained semi-autonomy beneath the bare vestige of a central financial administration. Ironically, by putting the empire on a war footing, Guyuk Khan lost control of the regions. Much power was delegated or assumed by local groups, who paid their token of submission as tribute or *kharaj* in money of variable worth.

Nevertheless even though several divisions operated, the whole area was economically interdependent. The extent of cohesion is revealed by monetary circulation patterns that emerge from the weight groupings of individual coins. Because the different standards of the Horseman types were clearly distinct, graphs show that earlier Rum Saljuq coins in particular moved freely in Gurjistan,[69] south around Tabriz and north of the Black Sea in Batu's domain. Apparently in many cases, the minters simply over-stamped reheated Saljuq flans from the previous series with their current Horseman dies. However, since the new coinage followed the weight of the Arrani Horseman standard of 2.75 grams, the Sivas Horseman was a whole carat below the normal Rum Saljuq coin. Further, many old un-stamped Saljuq coins were simply shaved in Tiflis to match its new weight of 2.51 grams. People had earlier given the same treatment to other old coins. In spite of these emergency measures, numerous coins, however, moved too fast to be clipped as histograms show a distinctive cluster of all these Horsemen types at the old Saljuq standard of 2.92 grams. Such activity meant that a rapid change of events had relaxed monetary production and exchange borders.

After a year of implementing the new reform in Rum, the mint master returned to Gurjistan probably in 647 H to strike copper.[70] In so doing, he re-established and confirmed the pre-Mongol monetary consortium between the two: the Saljuqs minted silver and the Bagratids copper. The re-emergence of the former order soon collapsed, however, after Guyuk's death that year. Sivas ceased minting, and Gurjistan made no coinage for the next two years. The Mongols replaced Qilij Arslan; fence-sitting had availed him nought during this, the first of his three reigns. The weak sultan had but mirrored the lack of direction in the region.

Guyuk's legacy

Throughout the empire, whatever remained of central taxation and coinage completely collapsed after the death of Guyuk in 647 H. The realm was in chaos as another queen regent, Oghul-Ghaymish, tried to control it. Guyuk's legacy was a bankrupt empire and a massive civil war that soon broke out and lasted until 649 H.

It had taken the Mongols an inordinately long time to appoint Guyuk as khan, and then his reign had been a quick succession of drastic changes. The central civilian and financial administration in the third province, so carefully built during the reign of Guyuk's father, Ogedai, had been abandoned. The variety of taxation

was reflected in the shifting weights and designs of the money, a medium always extremely sensitive under the Mongols to financial policy. Thus, the amazing number of coinages after Ogedai's death had shown starkly that Mongol officials had been exploring an enormous range of concepts for governing the empire. However, the most essential factors for success had been good leadership and a clear order of command from Qara Qorum, both of which had been lacking.

Mongka, 649–58 H

Political background

Although a bitter man intent on war, Guyuk died peacefully in 647 H. Nevertheless, the animosity and confusion that had plagued his reign continued and reached an unprecedented height when his favourite wife was accused of poisoning him, found guilty and then summarily executed.[71] Guilty or not, she was only one symptom of the severe unrest which soon exploded into outright conflict as the house of Chingiz Khan tried to chose its next leader. Finally, after two years of cruel and tenacious civil war as well as astute diplomacy, Mongka ascended the throne.[72] The empire was in shambles: loyalties had been divided, realigned and tested more than once. Much royal blood had been shed by Mongol princes, and many of them had fallen out of favour with the new khan. The Toluids had now become the ruling branch, derived from Chingiz Khan's youngest son, with the collaboration of the Jochids, descended from his eldest son. The Ogedaids and Chaghadaids were almost all massacred or relegated to insignificant pastures. The hold-over and sometimes junior bureaucrats in the imperial provinces held their breath and waited for orders. Instructions and re-appointments finally came once the imperial *quriltai* convened in 649 H, the council that traditionally met at the beginning of a reign. All important generals, princes and governors met with the new khan; and their discussions examined and ratified new policies for re-structuring the empire. Just as important as reaching decisions was implementing them, so the *quriltai* also paid great attention to the methods and personnel involved in administration. Therefore, it considered and re-assigned, if appropriate, everyone's position and clarified his duties. The laws were called *yarlighs*, and the symbol of an official's status was a wood or metal *gerege* (Mongolian) or *piaza* (Chinese).

Economic policy

Arghun attended the *quriltai*, which met at Qara Qorum in Jumada II, the sixth month, of 649 H. He had returned to participate in the investiture of, impart information on his province to and obtain instructions from Mongka.[73] Further, the decision was taken that:

> the various levies and miscellaneous exactments from the people were [too] numerous, that the latter's dispersion was due to this cause, that therefore taxation should be fixed in the way it had been established in Transoxiana

> by the Minister Yalavach, *i.e.* what was called *qupchur*, in accordance with which the amount of a person's annual payment was determined according to his wealth and ability to pay, and having discharged this fixed amount he might not be approached again during the same year nor might another assignment be made on him. So was the decision reached, and the emperor gave orders that a wealthy man should be assessed at ten dinars and so in proportion down to a poor man at one dinar,[74] all the revenue from this source to be employed to meet the expenses of the forced levy, the *yam*s and the maintenance of ambassadors. Beyond this the people were not to be interfered with and nothing was to be taken from them by unlawful requisitions nor were bribes to be accepted.[75]

The new instructions forbade free use of the labour and implements of subject peoples in forced work projects, including repairing the destruction the Mongols had caused in the first place. Further, since services and goods on demand had been the taxation policy under Guyuk, many imposts had been extracted at will by whichever chief had needed supplies. As a result, the edict implies, people had deserted towns and fields to avoid any Mongol who came their way. The situation was out of control according to Mongka and his councillors; they were critical of the way taxation had developed, so they returned to basics and re-established the original Mongol system created by Mahmud Yalavach. The edict, as reported above by Juvayni, is somewhat sparse on the details since the yearly poll tax had been imposed only in Zabulistan, not in Transoxiana, in which Yalavach had later acquired his reputation. Nevertheless, the poll tax was the first system in Arran and applied by Nizam al-Din. Later, Sharaf al-Din had again tried to implement it, apparently having had the support of Batu. That support was significant because behind the new khan stood Batu's immense power, assuring Mongka of rule and perhaps suggesting taxation measures to him. Although there is no indication in the time of Yalavach that the poll tax was calculated according to individual wealth, in the time of Mongka it certainly was: a graduated amount of tax in money was due from each individual or household according to its prosperity.

In Juvayni's report, the term *dīnār* should be understood as "standard coin" rather than in the technical meaning of a heavy gold coin. Juvayni seems to have interpreted the law in terms familiar to him without being aware of his assumptions. Equally imprecise, he did not indicate the manner in which wealth was measured. On the other hand, it is most telling that each person was taxed; a fixed sum was not assigned to a whole community. In other words, there was no tribute. The revenue went to pay the expenses of the local functionaries carrying out imperial business, who still had to rebuild the Mongol devastation, contribute labour to various projects, maintain the postal roads, horses, inns and riders as well as assist special imperial messengers and envoys. None of the poll tax was assigned to pay the military or civilian administration beyond the above duties, nor was it to be remitted to Qara Qorum to sustain the court. This poll tax was the mainstay of imperial finances, but it certainly did not go very far. Although not specified in the above decree, there were also taxes in-kind, levied especially on the artisans and rural population, both subject and Mongol. The types become more transparent in the edicts of Ghazan Khan's reforms at the end of the century and were probably the essential subsistence support for local representatives of central Mongol administration, both civilian and military. Further, Juvayni did not mention the method for distributing payments. As the branch *ulus* system grew stronger, this point became crucial.

It took a year before coinage was issued in accordance with the new law; and, even then, it did not immediately adhere to the precepts of the *quriltai*. Instead, a significant portion of the west continued to reflect the loose financial structure left from Guyuk's reign, which, at the end, had relied on tribute from locally administered areas. Moreover, the coinages that now emerged reflected cultural cross-currents in the empire. These were most evident in the Caucasus; a region in which religious and ethnic forces were often volatile and violent. The area was not unique, however. Gurjistan only highlighted the problems that imperial agents faced everywhere at this point in the history of Mongol rule.

Administration of Anatolia–Gurjistan

In the western part of the Mongol Empire, one of the richest resource bases was the Anatolian–Georgian region. Although it continued to retain some aspects of its re-established consortium, the new khan gathered in the reins so that it began to lose ground to tighter central control. First, the Saljuq Dynasty at Sivas re-instated some pre-Mongol attributes on its coinage, particularly those of design and weight, thereby adhering to its original capitulation terms. This return forced Sivas to discard the Horseman image for its pre-conquest style, excluding the Lion–Sun series of 638 H. Sivas also abandoned the Horseman weight for its normal one of 2.92 grams. The increase, in turn, meant that Bagratid Tiflis also had to relinquish its much lower weight. However, rather than return to its traditional 2.61 grams, the Tiflis coin rose to the previous weight of the Mongol Horseman type of 2.75 grams. The increase made a Bagratid coin worth 94 per cent of a Rum Saljuq one whereas before it had been 91 per cent.[76] Remarkably, even with a unit weight increase, the Georgians still managed to obtain the advantage.[77]

The Rum Saljuq coinage, which appeared immediately in 649 H, had only the names of the three new joint rulers;[78] but the Georgian money, which emerged in 650 H and continued briefly into the next year, had the names of both King David and Mongka Khan, described more fully below. Curiously, a slight change gave Mongka his title, *Qā'ān*, with a translation into Persian whereas, under Guyuk, there had been no translation of the title. Nevertheless, both of the current Saljuq and Bagratid treatments were basically a continuation of practices from Guyuk's reign.

The new Tiflis coinage in spite of containing the name of the legitimate David was fully wrenched away from the indigenous control it had enjoyed earlier. Rather, a well-educated Persian was put in charge of Georgian finances. He was someone,

it seems, culturally and geographically distant from the Christian subjects but understood well the Mongol concept of political legitimacy. On one side of the new type, he placed the inscription of "By the power of God/eternal,/Emperor of/ the World,/Mongka Qan" while on the other he put "David Malik/son of George/ the Baqrati" or *Dā'ūd Malik/ibn Gurgyi/al-Baqratyi*. The lines relating to the king followed an Arabic format. The influence was denoted by both the word *malik* and specifically the *nisba:* in Arabic, *nisba*s always started with the definite article, no matter what the original language.[79] A further classic touch was given by a rhyming couplet at the end of the last two lines: they formed a miniature poem with the *yā'* on the dynastic name matching the one at the end of George to read *Gurgyi* and *Baqratyi*.

The inscription on the reverse adhered to the same poetic approach; however, the composition was Persian. It stated *Bi-qawat khudā-ya/nā mirān/Pād-i shā(h)-ya/Jahān/Mūngkū Qān.*[80] The lines had alternating rhyming syllables at the end, *yā'* for the first and third lines and a long *-ān* for the second and fourth lines. The choice of the latter sound was probably inspired by the syllable at the end of the fifth line, the *-ān* in *Qān*. This rhyming treatment for both sides gave a highly sophisticated flair to the coinage: in a very short inscription, an elegant rhyme was created which used particularly poetic modes. Notably, the word *mirān* was an emotive and intellectually selective word for dying. The best known example and the only one known prior to this coinage comes from a famous fifth century hijra poem from Mazandaran.[81] Moreover, these rhyming patterns reflected a literati requirement for book titles; authors enjoyed displaying their attainments by playing with companion sounds to make the topic of their works more memorable. Therefore, this coinage type was remarkable, even if unique and short-lived, since it suggests the appointment of a cultured foreign Persian official over Georgian monetary affairs.

A more precise identity of the new director is problematic, but he may have come from Mazandaran or a nearby area. This in turn leads to the possibility that he was an agent of Mahmud Shah of Sabzavar. That ruler or a member of his family may still have been in service at this time and in control of regional financial affairs. If so, Sharaf al-Din's appointment of Mahmud Shah seems to have had later implications.

Certainly, the new mint master in Tiflis signalled the beginning of an iron grip from the imperial centre; and he enjoyed a special role in the new system. With the change in administration, both Gurjistan and Anatolia issued separate silver coinages with no copper. In other words, they no longer had a consortium; and each was responsible for its own tribute. Gurjistan soon became even further removed from Rum.

Vassal appointments: Tamgha *coinage, 650–2 H*

With his instructions from Mongka, Arghun finally departed from Qara Qorum. However, there is no definite textual indication of the time he left for or arrived in

Gurjistan. Nevertheless, a contemporary source, Juvayni, stayed behind and took his leave only in Rajab of 651 H, two years after the *quriltai*.[82] Arghun would have left, therefore, at the latest in the first half of 651 H but probably earlier. On his route back to Arran, he started planning the revision of the Iranian system and made an important visit to Batu.

Earlier, Arghun's solution to the disintegrating situation in 645–6 H had been to transfer the mint to Bulghar. Such an action would have been possible only if coinage was important to Batu. Being the only Mongol money, it was; and he used it. Arghun returned to reclaim the prerogatives of the central mint and to initiate a programme of further integration and cooperation of the northern area, ruled by Batu, with the third imperial province, supervised by him. Arghun and Batu arranged that "out of every country of I-ran which fell under the jurisdiction of the Mughals, he [Bātū] had a specified assignment, and his factors were placed over such positions as had been allotted to him".[83] His agents could have held specifically sensitive posts, either as commanders of strategic places, like the pass at Darband, or as heads of the postal services in certain regions. Although the text says "Iran", Batu's territory of Turan was also included.

Bulghar

The agreement created a new style of coinage which probably began in 650 H. It emerged first in Bulghar followed by a chain reaction in Iran. To start the coinage, Arghun seems to have summoned the former Georgian mint master to Bulghar. The subsequent vacancy his move created in Tiflis was perhaps the reason for the arrival of the Mazandarani. The mint master for Bulghar was well aware of Mongol forbears, especially the Tabriz design. He gave both sides of the new coin the same cartouche as Tabriz of a square inside a circle. One variety, however, which perhaps came first, had only a circle. The reverse read *Mungū Qā'ān* on the first line followed by his *tamgha*, then *al-āẓam* on the third line. The *tamgha* was stretched longitudinally with a large reversed vertical S in the centre. The obverse was simplicity itself, stating only *ḍarb-i/tamgha/Bulghār/*"the mint of Bulghar"; but there was no date, as illustrated in Plate 5.3.[84]

Obverse

Reverse

Plate 5.3 Imperial *Tamgha* type (Bulghar) (No date; weight: 1.19 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

The standard of this silver coinage, substantially reduced from the previous one, was 1.15 grams.[85] Bulghar seems to have struck at a third of the 18-carat unit of the 4.48-gram mithqal. Copper was also issued but at a much heavier weight.[86] Batu's preference of mithqal and division indicates that the Volga Basin at this point turned eastwards and became integrated with the Samarqandi system. Given Batu's proclivities and the tenor of the *quriltai*, the Bulghar money was probably for a poll tax.

As Arghun continued his tour, the coinage suggests that he had two financial departments, both collecting *qubchur*. One fell under the agreement with Batu and the other under the full imperial mandate, which was directed from Tabriz. The Batu–Arghun contract covered most of the Mongol territory in the west whereas the Tabriz administration covered not much more area than Adharbayjan. As a result, the clear mandate of the *quriltai* about finances was modified since monetary taxes consisted of two systems. In particular, one-fifth to one-third of the greater revenue, a sizeable portion, was first handed over to Batu.[87] Further, the system did not seriously affect local administrative structures since they relied on taxation in-kind; and, in particular, Mongols were most concerned with grazing places, to which they could be assigned in perpetuity.

Gurjistan

When Arghun finished his visit to Bulghar, he travelled south through the Caucasus to continue implementing the new policy. In Tiflis by the end of 651 H and in the first month of 652 H, he held a census initially; and then he instituted a tax. According to a contemporary source, Grigor of Aknac[c]:

> A Tat[c]ar chieftain, Arghun by name, came by the command of Manku Khan and took a census of the eastern country for the taxes. From this time on they were wont to tax according to the number of heads of the people, as many as were inscribed on the books ... all from fifteen to sixty years of age. They took sixty aspers from each person who was counted.[88]

The *quriltai* had been specific about the rate as a proportional tax on wealth. This source describes instead a fixed amount. It seems, therefore, to be reporting the Batu–Arghun agreement, implying a level of Jochid hegemony in Gurjistan. On another point, however, there should be no confusion about the kind of money indicated. Although Juvayni had said the tax was calculated in *dīnārs*, which in traditional terms meant gold, the term had a looser meaning of "current money". This was apparently the same meaning for Grigor in his statement that in Gurjistan the tax was in *aspers*. This was the regional name for small silver pieces, using a local Byzantine name for Saljuq-style *dirhams*. However, there is still doubt about the actual value of the amount each person owed.

Changing from tribute to a poll tax was a substantial switch in policy for Tiflis. To keep the treasury books and coffers properly, the government required a new

type of coinage to differentiate this *qubchur* from the former *kharaj* money. The new design consisted of a square-in-a-circle on both sides, following the Bulghar style. The obverse stated "There is no god but God, Who has no associate", the marginal formula providing the date. On the other hand, the reverse inscription linked it to Batu's coinage. It had "Mongka Qa'an, the Supreme, the Just," all in Arabic. Outside the square appeared the mint. In the centre of both fields stood Mongka's *tamgha*, this time upright with the prongs of the double-ended trident at the top and bottom of the pole.[89] The type is illustrated in Plate 5.4

Thus, this reverse was very similar to the Bulghar coinage except for the angle of the *tamgha* and the omission of the S. Further, as only the khan's name appeared, the inscription no longer alluded to Georgian royalty, a sign that tribute had ceased. The fact that the dies had the Islamic *shahada* and sometimes even the Muslim holiday of 10 Sha[c]bon suggest that the Georgian Christians were now completely relieved of minting rights and perhaps political control as well. A Muslim, probably the same Persian from the previous tribute system, directed the programme. Whoever he was, he had to be someone with a guaranteed loyalty to Arghun and his new system. Indeed, Gurjistan had become substantially weakened at this point. Both Davids now ruled separate parts of the country. Ulugh David controlled only the eastern Tiflis region until 668 H/1269 or 1270 AD, when he was succeeded by Dimitr[90] and then David Narin until 693 H/1293 AD. The reduced power that restrained Tiflis was coupled with an increase of Mongol government. The money marked a shift of Georgia's status that was forced on it by a compromise of shared revenue between Iran and Turan for a poll tax. The arrangement was effective since the monetary framework of Gurjistan was stable from 652 to 659 H, using this style of coinage.

During the eight years of the policy, the weights, however, underwent changes, reflecting again the country's intermediary political position. At first, money continued at 2.75 grams, which lasted until the middle of Safar in 655 H. Then it was lowered for two years again to the standard of 2.51 grams or 14 carats of the

Obverse Reverse

Plate 5.4 Georgian *Tamgha* type (Tiflis) (Date: Rabi[c] II, 652 H; weight: 2.61 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

4.30-gram mithqal. That decline meant Tiflis enjoyed a brief tax reduction if dues were still calculated by number rather than by weight. Then from 657 H, the city returned to 2.75 grams for the rest of the issue until 659 H; but the tolerance was wide. This metrological activity was most unusual; but, just as curious, none of it was broadcast by a change of design. For two years, clever tax officials handed over to Batu's successors the three or five normal instalments; but the payments were not all at the same value. However, much more was happening than a possible local tax rebate. The reduction signalled the beginning of an insidious and pervasive conflict between the two remaining branches of the Mongol royal family, those of the Jochids and Toluids. In the first change of 655 H, the weight reduction exposed the difficulties with and probably an attempted abrogation of the Batu–Arghun agreement: Batu had died in 653 H, and first Sarraq (653 H) and then Ulaghchu (654 H) took the throne. However, no strong ruler emerged until 655 H. Then Batu's brother, Berke (655–65 H), forcefully took over the western steppe region. With reduced support from Tiflis, Berke did not rely on the agreement but started to mint his own coins, the first independent issues from Jochid territory.[91] Hulagu re-installed the agreement for Gurjistan in 656 H as one of his first acts in the region, and later Jochid successors tried to reassert their right to the agreement monies into the next century.[92]

Since the Georgian tax was fixed at the same amount for everyone according to Yalavach's system and then that of Sharaf al-Din, the policy did not adhere to the edict of the 649 H *quriltai*. Further, the tax differed significantly in still another way; it was collected in instalments of at least three payments a year. That information does not come from texts but from the coinage, which stated not only the year but the month as well. The instalment system was a practical way to meet the contract and marked an important improvement in management. Since collecting revenue throughout the year required more chancery officials to keep more bureaucratic records, the increased manpower could also spread intake and expenditure over a longer period, helping to better stabilize the economy.

Arghun collected the first portion in Rabi' I, the third month, of 652 H, which started that year on Tuesday, 21 April 1254 AD.[93] He accepted the second in Jumada II, the sixth month, and the third on the tenth of Sha'ban, the eighth month,[94] that is, about every three months. Since the rates were paid in coin, these issues presumably were for that tax; but probably each household or person owed only twenty silver coins each third of the year. To fulfil the agreement and keep the records simple, the diwan could have handed over the total of one of these collections to Batu.

However, in the next year of 653 H, the Georgians paid their tax over five months,[95] starting half way through the year from Jumada II through Rajab, Sha'ban and Ramadan to Shawwal. At the first payment, ten months had passed without any tax; and then the revenue from one of these five months once again probably went to Batu. The sources say both one-third and one-fifth was assigned to Batu; these coin dates, therefore, clarify otherwise confusing textual information. According to the number of instalments in the ensuing years, it seems that the

amount alternated every other year. After the death of Batu, the original number of collections resumed for the next year of 654 H; but the three took place in Safar, or March, then in Jumada I, or late May–early June, and finally in Sha'ban again or late August. The year 655 H had only one collection, again in Safar.[96] Instead, as every agency prepared to assist Hulagu, the Persian manager awaited his new directions and stopped minting. By 656 H, Hulagu revitalized the system. He continued to honour the imperial governor's part of the agreement with Batu's formidable brother, Berke; and six collections took place in the second, third, eighth, ninth, tenth and twelfth months. They were repeated in 657 H during the same months except for the last, which was brought forward by one. The extra payment each year made up the arrears of 655 H. However, in 657 H, the weight increased to 2.75 grams. Thus, for four years after Batu's death, the tax season started right after the holy month of Muharram. Tax was first collected in Safar, the month wandering from late January to mid-March; and for two of those years, it was received six times a year. The situation changed in 658 H, when only two instalments were allowed late in the year, in Sha'ban, the eighth month, and Dhu al-Hijja, the last month. In 659 H, tax was taken only in Dhu al-Hijja. At that point, the system was floundering from a political crisis.

In spite of a well-run administration and Hulagu's military power, in 659 and 660 H, the Georgians revolted. They quickly issued a Byzantine style of coinage but stayed at the same weight of 2.75 grams. The design represented both Davids, who now ruled jointly from the western valley of Samtskhe.[97] Once Hulagu reclaimed Tiflis, he re-instated the tax agreement in 660 H.

Iran

The complicated history of the Georgian implementation of the Batu–Arghun agreement was not reflected elsewhere in the third province. After Arghun had arranged matters in Tiflis in 652 H, he continued south to Adharbayjan. There, he "completed the work of holding a census, imposing *qubchur* and assessing taxes, after which he set out for Iraq" to do the same thing.[98] There is no report about the rest of his itinerary. However, regardless of the lack of literary sources, it seems that he did continue to impose a stronger government in Greater Iran. In his remit, he had brought orders from Mongka to withdraw previous *yarlighs* and assign new posts, which allowed him apparently to give special recognition to some local dynasts. They also came under the Batu–Arghun agreement. His progress can be detected only from a particularly frustrating coinage. Issues appeared in several places, but most had no mint names. In Fars, however, the Salgurid atabag thought it wise to strike gold without reference to the khan by title or name but only instated Mongka's trident on the reverse. Below the *tamgha*, the ruler identified himself as *Atābag Abū Bakr bin Sa'd* (628–58 H). The obverse used an old local die that contained the *shahada* and listed a deceased caliph, al-Mustansir (623–40 H).[99] The other mints were generally not identifiable. Nevertheless, the issues employed the same basic type, which was struck usually on billon. One side had

only *Mūngkā/Qā'ān* with a large depiction of his trident *tamgha* lying horizontally between the two lines of inscription, allaying the layout closely to the Bulghari prototype. The other side usually had the mint or parts of the *shahada*. Often the dies were so large that only a small portion met the flans, making most coins unable to be attributed to a mint. Only as Arghun reached the eastern Iranian areas did mint names appear. Since the fabric, size and calligraphy of these types are similar, they suggest that most *Mūngkā* coins were from the east. However, all the dies are rather different, implying that indigenous craftsmen made them locally as Arghun went through each area collecting imperial taxes. Further evidence of regional administration comes from weights, flan widths and thicknesses that met local specifications. In effect then, this enigmatic coinage shows that Arghun did reassert Mongol hegemony in the third province. However unlike Gurjistan, it was apparently not regulated by a permanent and resident bureaucracy.

Once Arghun reached Khurasan, his progress becomes more visible. However, only three areas are clearly identified, those of Harat and its scions, then Damaghan and Astarabad. A more detailed look at these coinages provides some indication of the structure of Mongol control of the region and the imperial vision at this time. The pattern that emerges from these three areas may not have occurred elsewhere as the situation in Gurjistan attests; nevertheless, it portrays the practical policies of a re-vitalized Mongol goal of universal rule.

The founder of the Kart Dynasty, Shams al-Din Muhammad (643–77 H/1245–78 AD) was reconfirmed as the ruler of Harat in 650 H. Once Arghun reached the area, he did not treat Harat as a full capital as Yalavach had done but seems to have put it on a secondary level as a lesser vassal. Shams al-Din issued silver at Harat, at Nimruz, the main city in Sijistan, and billon at Talaqan. The *tamgha* did not occur, but all had the same *Mūngkā/Qā'ān al-ʿĀdil* or *ʿĀdl* with or without the definite article on the reverse. The mint name appeared on the reverse at Harat and Talaqan and on the obverse at Nimruz. Specifically, the Haarti obverse had *al-Dirham/al-Mubarik/Harat* while the reverse read *Mūngkā/Qā'ān/al-ʿĀdil*. Only a circle surrounded both sides.[100] The average weight at Harat was 3.02 grams. At Nimruz, the inscriptions read simply *Mūngkā/Qā'ān ʿAdil/ḍarb-i Nimrūz* on the reverse and *Āllāh/Muḥammad/rasūl Āllāh* on the obverse. Again, a single circle was the only embellishment on the edges.[101] The average weight was 3.11 grams, which does not fit into a recognisable system. However, together, the weights of Harat and Nimruz fall just short of the old standard of 3.09 grams, providing a framework in which to situate the Kart system. The Karts, therefore, appear to have struck silver at three-quarters of the 4.125-gram mithqal, continuing the accounting system that Yalavach had used in the same territory. At Talaqan, the obverse had *ḍarb-i/Ṭalaqān*; and the reverse contained the minimum letters for Mongka as *MNKŪ* then continued with *Qā'ān/ Adl*. Both sides had a linear, dotted, then another linear circle around the edge.[102] This plethora of issues indicates how extremely important the Karts were in holding on to part of the area which Chingiz Khan had abandoned. However, such extensive territory under vassal status apparently posed difficulties since the Karts did not develop a coinage system

further after the death of Batu. The minting period was short-lived, ceasing as Hulagu entered the region.

In the northeast at Damaghan,[103] the ruler issued a gold type citing *Mūngkā al-Khāqān/al-ʿĀdil a/l-Aʿẓam/Damaghān* on the reverse with the short *shahada* followed by *Damaghān* again on the obverse. The type also had marginal legends on both sides giving the minting formula, but the date is off the flan.[104] Like Harat and Nimruz, the marginal design consisted of an unimaginative circle on both sides. Only one coin is known from Damaghan, which almost hits the standard of 3.09 grams for the area. The weight was to remain Damaghan's preferred one throughout the rest of Mongol rule, the region intransigently holding on to it as the rest of Greater Khurasan moved towards a unified monetary system. This was the first time Damaghan struck coins as a Mongol mint, doing so probably for two reasons. First, the region covered the central territory between the northern steppe and the southern realm of the Karts. Second, the issue exhibited Mongol control in a local stronghold of the Nizari imams of Kursi al-Daylam, who were becoming a threat. Therefore, this coinage may, in part, indicate that the ruler of Damaghan had to show his immediate support for Hulagu as the prince approached in his campaign against the Nizaris.

Damaghan's neighbour, Astarabad, had a different system altogether. It issued half and single silver units, on which the mint appeared on the obverse in the form of *al-dirham/bi Dhihistān/*'the coinage of Dhihistan'. On the reverse appeared *Mūngkā/Qā'ān/al-ʿĀdil* with no marginal inscriptions.[105] The average weight of both sizes reached an astonishing level of 3.39 grams for the single unit, a figure impossible to connect with any other mint or reconcile with any known mithqal. An analysis of the purity may solve the problem; but, for now, Astarabad's tax structure and trade connections are unknown for this period.

Considering all three areas, it seems that Sistan, Harat, Damaghan and perhaps Astarabad calculated their finances by the same system. Further, there was a curious mixture of metals: gold and copper complimented the main metal of silver. Therefore, there is no information at this point about the exchange rates among these metals; but they would have added substantial complexity to Arghun's calculations if he had intended to have a yearly collection. It seems that he did not plan to do so.

During this time, the second province was also active. Almaligh produced money in 650 and 651 H, and Bukhara and Samarqand issued large flan billon, probably in 651 H. It was obviously a hasty minting since, in one case, the mint pulled an old *Manṣūrī* obverse die of the Khwarazmshah from storage.[106] The director took time only for an engraver to make the reverse, which had an ornate quatrefoil cartouche with *Munkū Qān* in it. This province may have been part of the agreement because Masʿud Bag, who had been harboured by Batu about 641 H, might have owed Batu revenue to repay his generosity.

All of these inscriptions were similar to those of Bulghar and Tiflis, specifically not having the name of the local dynast except in Fars. Instead, they had the great khan's name and, except in Greater Khurasan and Transoxiana, his *tamgha*. In

Fars, the imperial *tamgha* was artfully drawn to resemble a graceful fleur-de-lys but lacked his name. Because of the similarities, the issues probably adhered to the same policy. Thus, for a few years starting in 650 H, this coinage was apparently in response to the need for taxation from regional Iranian dynasts. Moreover, it has an aura of Sharaf al-Din's hasty tour of Iran in 643 H since there was no regular collection based on customs duties or a population census. The timing and nature of this coinage also suggest that a good portion of it went to Batu, but more details are lacking. Consequently, wherever coinage appeared in Iran with Mongka's name, the region was probably subject to the special *qubchur* tax structure that included the re-appointment of local dynasts.

Having the khan's name on the coinage set it apart from one Mongol tradition, that of anonymity; but, conversely, a *tamgha* adhered it to another one. Mongka's mark labelled the coinage as clearly as his name did. Central Asian ruling houses, as a sign of privilege, often used an image of heavenly favour. Various ones had appeared on the first Horseman issues from Adharbayjan in 642 H, notably the stork and dragon; but the symbol Mongka selected, which the family kept as its crest, was the double-ended trident or *ochir*. It represented the power of nature's most direct and dramatic connection between heaven and earth, the thunderbolt of lightning. The Mongols understood the phenomenon as the active agent or body of the highest god.[107] The equivalent *ochir*, held in Buddha's hand, has four tines in a square opposite and bent towards each other. However, the normal steppe design, including tridents displayed today, has three prongs. Often the tines were curved outward, which made it look like a fleur-de-lys. The full object depicted on the coins could be one *ochir* at the end of a vertical stand, two at opposite ends of a horizontal or vertical pole or four in a cross shape. Mongol coinage in semi-vassal states, from Mongka on, intermittently carried either the single or the double form.

Insubordination at Alamut

Without firm evidence but from strong circumstantial material, it appears that in 652 and 653 H, the khan's name and trident insignia on the coinage announced the geographical extent of the empire under the leadership of the new khan. One region, however, had withdrawn support and reacted in a most provocative way, the Isma'ili domains. It had nominally submitted to the Mongols much earlier. Negotiations between them had begun in 616 H, and the ambassador had apparently met Chingiz Khan in Balkh in 618 H.[108] The arrangement had been formalized in 619 H; and at about the same time, the Isma'ilis had seized Damaghan. They had benefited well by expanding their territory and trading activities.[109] Although the imams had not acknowledged Mongol suzerainty on earlier issues, tribute money did not always require such protocol. At this point, the relationship became uncertain, however, as with great assurance the imam issued gold and silver in 650 H; the only time the Isma'ilis had put a date on their coinage. The inscription made no mention of the Mongols, citing only their ruler, 'Ala' al-Din Muhammad (618–53 H).[110] The

minting, therefore, disregarded the increased authority of Arghun nor followed the Batu–Arghun agreement. Presumably that meant Arghun did not officially re-appoint the imam. Coupled with the earlier Isma'ili attempted assassination of Mongka Khan,[111] the coinage was additional proof of Isma'ili insubordination in the eyes of the Mongols. Hulagu was to resolve the problem in 654 H, four years after the issue.

To conclude the survey of Mongka's initial revenue exercise, it is evident that Arghun's circuit of the western portion of the empire created some confusing coinages because his remit was an awesome one. He was to impose central authority throughout the third province, no matter what shade of sovereignty he granted each region, provide revenue for both Batu and Mongka and create a more comprehensive state structure.

The imperial mandate at Tabriz

Arghun supervized the extended regions as he had in 641 H, but he could not have done so without an absolutely assured regional power base. Such a base was the foremost requirement for securing and re-organizing the empire. Previous Mongol groups had favoured the territory of Arran, and Mongka's men continued to do likewise. For this reason, events in Tabriz did not take the same course they did in areas of vassal rule. The city was Mongol and under central administration: there, imperial edicts were applied unequivocally. The production of totally Mongol money fell to Sadr al-Din, who was re-confirmed as Arghun's deputy by the *quriltai*. With full authority, he had gone immediately to Tabriz in 649 H "to arrange the census, the division into thousands, and the imposition of the *qubchur*".[112] The position not only made him the *basqaq* of the workshops but also wrenched Mengu-Bolad from his role as the chief administrator of the entire region. From this point, both Mengu-Bolad and his Ildigizid partner fade from history. Sadr al-Din's arrival marked the turning point for Tabriz to become the financial focus of imperial administration in the west.

The Mongols did not automatically choose Adharbayjan and Tabriz as their western capital. The area had the same political patterns found elsewhere, yet it now started on the road to become the administrative centre of all the Islamic and Christian lands as well as the northwestern steppes subject to Mongol rule. There are two explanations for the choice of the area. One was geographic: Adharbayjan was the central point between Mongol territories north and south, notwithstanding that the Caucasus Mountains would seem to have provided a natural barrier. The other reason was economic: the area was rich in a natural resource of great value to the Mongols, horses and good pasture.[113]

However, the particular urban centre of Tabriz had nothing to presuppose its future development. In fact, the site was but one of several early active Mongol mints in the region. Rather, Tabriz won its status through a series of political events. These started at the time the Mongols first arrived in Adharbayjan. In 617 H, the Mongols razed most of the cities but did not destroy Tabriz; therefore,

it became a gathering point for displaced populations. Even so, it was overwhelmed by these new groups and continued to be exposed to invading forces. The incoming people had fled not only from the surrounding territory but had also come from further field. In addition, Tabriz had lost local leaders during the time it was taken over by the Khwarazmians from 622–8 H. After that period, the Mongols had reinvested Khamush as the Ildigizid puppet in 628 H. Nevertheless, the atabag did not have a strong position in Tabriz. Instead, ten years later in 637 H, one of the first Mongol mints was the former Ildigizid capital of Ardabil. Five years after that, in 643 H, the Ildigizid *tamgha* and symbols of royalty reappeared in Nakhchavan. These sites indicated that local political power remained not in Tabriz but in Ardabil and Nakhchavan. This evidence, consequently, strongly suggests that Khwarazmian rule had broken any indigenous power group in Tabriz. Further, Mengu-Bolad's initial position and subsequent role as power-wielder had highlighted the special situation of Mongol hegemony there. As a result, in 650 H, the Mongols chose Tabriz as their capital precisely in order to outflank other points of local control. The political factors were crucial to the Mongols as they took charge of financial administration and begun to depart from reliance on regional dynasts.

The fact that the Mongols were able to use Tabriz as their base would not have been a sufficient reason for them to choose it without a simultaneous desire for a central fiscal depository. Although Kirgiz had recognized the importance of a seat, he was unusual. It was not until this date of 650 H that the Mongols fully accepted the idea of a fixed point for administering their own affairs in Iran. The centralization policy was reflected in the Mongol management of money.

A brief overview of the development of Mongol imperial structure emphasizes the tension between camp and city, fixed and mobile administration. In the Mongols' first military sweeps, they initially had not understood how to use cities for controlling territory. However, even as they learned, they continued to be wary of concentrating power in one locale. Their own way of life, which avoided permanent sedentary situations, allowed them to be adept at organizing new sites easily and quickly. Nevertheless, once the Mongols recognized the importance of cities, they employed the age-old method of control: they borrowed the pre-existing pattern of society in each region for their own ends. Therefore, their initial distrust and their continuing independence of urban sites were added to a third factor: their use of the local political structure, which had its own geographic focus on an urban capital. For these reasons, the Mongols first had centred their administration in Adharbayjan on the seats of the indigenous dynasties of the area, Ardabil and Tiflis, and had then shifted to the secondary Ildigizid sites of Ganja and Nakhchavan. However, as political sophistication continued, they outgrew the traditional method and instead developed a region by rotating mints from a centre, first from Ganja and then from Nakhchavan. Finally, the Mongols chose their own centre of Tabriz. Through the strength of a viable and populous site and the weakness of a political vacuum, Tabriz was both safe and able to start the development of full Mongol government.

Centralization of the financial administration

Tabriz would be the sole imperial mint for many years to come, and its establishment was the sign of a rigidly static centralisation of finances. Formerly, the trade or customs tax had been levied, it seems, at commercial entrepots while the poll tax had been collected at only one point, the political capital of the region. In 650 H, when Mongka Khan required the *qubchur* from his realm, its application required a single capital that eventually united all the regions and increased imperial control in the west, giving Tabriz hegemony ultimately over all other places. The city quickly became the single payment site and eventually directed monetary and taxation policy for the entire western part of the empire. Arghun did not change the simple and strict organization until 668 H.

Once there was a clear central policy, the diwan at Tabriz developed a structure for the mint, itself, and then a method for its subsequent control over the entire third province. The form of this fiscal and monetary administration is not described in texts even though chronicles, scientific material and many other literary works are more prolific from this dynasty than from any before it. In fact, administrative information never entered pages of treatises unless the situation was unusual such as a major reform or revolt. Thousands of registers were obviously compiled, but they were chancery documents and privileged information: the general public, including the modern scholar, did not need to know. Further, a good deal of the laws and practices were probably consigned mostly to memory, not paper, in keeping with steppe custom. In spite of these difficulties, the best clues to the finances of the realm remain in abundance, the coinage. A close examination of it identifies major developments in economic concepts, which Tabriz moulded into practical applications. The rest of this study is devoted mainly to the critical role of Tabriz in Mongol financial administration.

Foremost among the telling aspects of Mongol coinage was the weight, and the weight of Sadr al-Din's new Tabriz coinage was significant in a number of ways. First, he put the single unit at the same weight it had been at the establishment of the city as a mint. It is important to remember that before 638 H, the city had never struck coinage. Therefore, it was the first truly Mongol mint, not one taken over from previous dynasties; and the Mongols had chosen the weight to fit foreign trade activities. Now in 650 H, Sadr al-Din re-employed the same unit weight of 2.83 grams and the mithqal of 4.24 grams; but the standard served the internal poll tax. Sadr al-Din was not, however, introducing anything new. Indeed, in every respect, he followed the abortive lead of Sharaf al-Din. Not only was the purpose and weight the same but the design type and the accounting system were also duplicated. Further, the actual coin was founded on a single unit in a monometallic environment.

The importance of the weight was signalled by the design. It returned to Sharaf al-Din's model of a hexagon on one side and a square on the other, both of which were symbolic for the weight. For some time, there had been comprehensive use of geometric forms in the Middle East to depict mathematical relationships.[114] Authorities had also applied this system to money: coinages exist from the

ʿAbbasids, Fatimids and Ayyubids that rendered complicated messages about the order of the world or just gave the simple value of the coin. The concept was attractive to the Mongols, ever people for figures and calculations, who applied it to this and some of their later coinages. In this design, the number of the sides of the forms told the proportion of the coin weight to the basic mithqal standard. At 2.83 grams, the coin weighed four-sixths of the 4.24-gram mithqal. This proportion matched the four sides of the square and the six sides of the hexagon. As discussed in greater detail in the next chapter, the mithqal was divided into six parts, called *dāngs*. Therefore, the graphic arrangement of this coinage showed that the major imperial coin had the special Tabriz weight of 2.83 grams.

Next, the administration adopted, as instructed by the *quriltai*, not only Yalavach's early taxation policy but also the body politic structure he had found and maintained in Zabulistan. Therefore, the weight of this Tabriz coinage was the highest in the realm; lesser mints had lower ones or eventually, after major reforms, became equal to it. As Tabriz spread minting to more and more parts of Greater Iran and also took over control of ʿIraq-i ʿArab and the Jazira, it not only had to struggle to accommodate various other weights in a comprehensive system but then also had to impose its weight at the head of the hierarchy. Coinages from the lesser mints were below that of Tabriz until a long and radical reform finally succeeded under Abaqa Khan in 679 H. Even then, the Rum Saljuq vassal coinage consistently remained slightly higher and beyond the reach of Tabriz. Until these changes, coinages from other mints were often re-stamped by Tabriz in times of crisis or great strain but were probably circulated at par. Significantly, all coinages from vassal areas were exceedingly close to the Tabriz standard. An example is the current money from both Sivas and Tiflis, which were only half a carat removed from the Tabriz weight, up and down, making the exchange difference only one coin in 31 or 32 of Saljuq or Gurjistani coins respectively to the Tabriz coin. Thus, even if not re-stamped, the regional coins could have been easily used in the markets. However, they would probably not have normally sufficed for tax payments.

Imperial Hexagon coinage, 650–68 H

Not only the theory and structure of money but also the statements on the coinage returned to Yalavach's policy, which Sharaf al-Din had used in his 643 H hexagon and square designs. Sadr al-Din copied faithfully on his coinage of 650 H the simple *Lā ilāh illā/Āllāh Muḥammad/rasūl Āllāh* on one side and *Qā'ān/al-ʿĀdil* on the other. In turn, those inscriptions had come from the 637 H coinage that had been derived from Zabulistan.

Sadr al-Din apparently collected the first yearly payment in Rajab, the seventh month, of 650 H since the month was engraved on the coin die.[115] After that year, however, no month was indicated. In the first two years, it seems that light minting occurred[116] partially because Sadr al-Din was awaiting the arrival of Arghun. Then in 652 H, minting increased significantly according to the number of extant specimens. If the situation repeated that of Kirgiz's initial policy, Sadr al-Din

taxed all the Mongols in the area for the first two years and enrolled the remaining subject population during 652 H on Arghun's arrival. The manner in which the population was actually divided and counted, however, needs separate studies.[117]

However, in 653 H, minting stopped in Tabriz; only one coin is confirmed for the year,[118] which indicates that the full collection of *qubchur* could not have taken place. The reason presumably lay in two factors. First, Arghun had moved on to the east; and, second, Batu had died that year. With him went the power to sustain the special agreement, and perhaps Sadr al-Din needed to clarify his independent position. It was probably at this point that the other *tamgha* and privileged dynastic coinage systems ceased except for Gurjistan. In Adharbayjan, the hiatus in coinage continued from mid-653 until mid-656 H, during the shaky control in the steppe of the new Jochid rulers. These disruptive events in the north not surprisingly affected Tabriz. Without Arghun there, Sadr al-Din did not gather any revenue in Tabriz. In effect, the lack of direct authority and any strong leadership caused turmoil in the region. After a promising start, imperial policy implementation faltered dangerously.

However, other factors allowed the stoppage as well. In 654 H, the immense imperial force of Mongka's brother, Hulagu, arrived in the third province. After taking the strongholds of the Assassins or Ismaʿilis in the Elburz Mountains, Hulagu proceeded to Hamadhan, which became his rendezvous and planning point for the massive attack on Baghdad. From Hamadhan, he also made several trips to Tabriz.[119] Since it was not minting, Hulagu requisitioned the mint master to strike in late 655 H the Tabriz type in Hamadhan.[120] Hulagu then sent the official back with his master die. At this point also, Tiflis dropped its unit weight to 2.51 grams or 14 carats of the 4.30-gram mithqal; thus, it could strike more coins from its bullion allotment. It seems that Hulagu was in need of money.

Hulagu, 656–63 H

Conquests of Baghdad and Syria

Hulagu[121] marched on Baghdad and captured it in the second month of 656 H or February 1258 AD. It was perhaps the wealthiest city the Mongols had ever captured and opened a new chapter in the economic organization of the empire. The most influential change involved Hulagu, himself: an imperial prince took the Caliphate, not a general for the royal house. This status gave Hulagu the right to rule his conquests in his own way rather than for the benefit of all Mongols, a legality that affected especially the Mongol *ulus* closest at hand, the house of Jochi on the plains of Russia. With this conquest and the others to come, Hulagu established a separate territory from which the revenues went directly to him and his successors. He was guided in this complicated endeavour by Nasir al-Din Tusi, the most brilliant scientist of the age, who had accompanied him from the Ismaʿili capital of Alamut. On the other hand, the area of Greater Iran remained an imperial province, which Hulagu governed for the central authority headed by his brother, Mongka. Its finances met the requirements of imperial directives, especially those dictated by *quriltais*. In the

years to come, coinage developed differently in the two areas, being distinct in principles and function. Eventually, however, political events forced an amalgamation; but the convergence took almost ten years and was fraught with severe difficulties.

The separate structures began immediately at the conquest of Baghdad. The Mongols managed ʿIraq-i ʿArab's finances largely in the Islamic tradition. Therefore, two chief features of Mongol coinage were set aside: the first was monometalism, and the second was anonymity of the ruler. The ʿAbbasid's "City of Peace" lost its former identity and changed its name to Baghdad, lifted from a nearby village, and began producing Mongol gold and silver coinage immediately in 656 H. The money had the names of both Hulagu and Mongka on it and employed a sura from the Qur'an (iii:25), establishing Mongol legitimacy as non-Muslim rulers.[122] The coinage consisted of double and single gold dinars as well as full, half and third silver dirhams.[123] The weight standard was raised from 2.87 to 2.92 grams.

Initially, the leading calligrapher and last die engraver of Kursi al-Daylam, not the Baghdad mint director, was the person who established the Mongol organization. The calligraphic style on ʿAla' al-Din Muhammad's last coinage of 650 H was replicated on all the Baghdadi coinage of 656 H. When the Ismaʿili citadels in the Elburz Mountains had been captured two years earlier, the person was apparently spared. Not only was he a craftsman, who elicited importance in Mongol eyes, but also, as a calligrapher, he had one of the highest positions in an Islamic chancery. Being an ʿAlid also helped his status since the former Baghdadi wazir, reinstalled by Hulagu, was an ʿAlid as well.[124] The calligrapher had a distinctive cursive hand developed from the fifth century Qaramatian style of script, in which the ascenders of the *lām–Ālif* ligature almost formed an oval called *piramuz*. This style demanded great artistry and skill, which few calligraphers mastered at this late date. The official combined the Qaramatian *piramuz* with the more open, horizontal letters of naskhi script. This person seems to have run the mint[125] and continued to travel with Hulagu, leaving Baghdad later in 656 H. However unfortunately, once he left, no one replaced him; and the city stopped minting for almost three years. His next role was in the establishment of Mongol civilian administration in Syria in 658 H as his unique hand reappeared on the Mongol coins of Hama[126] and Damascus as exemplified in Plate 5.5.[127] After the decisive Mongol defeat at Homs, however, he re-crossed the Euphrates with the withdrawing forces, which then remained in the upper Jazira, perhaps waiting for another invasion of Syria. There, too, he was part of the administration since his elaborate style appeared again on the 659 H issues of Harran[128] and Nisibin.[129] The official disappears from view with the demise of the Syrian campaign. His role compliments the literary sources that detail the full bureaucracy accompanying Hulagu to Baghdad, Hama, Damascus and the Jazira.

Capitulation of the Jazira

As Hulagu had advanced towards Baghdad, the Jazira had quickly capitulated. The most astute politician of the region was Badr al-Din Lu'lu' of al-Mawsil, who

Obverse Reverse

Plate 5.5 Mongka – Hulagu type (Damascus) (Date: 658 H; weight: 2.79 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

acknowledged the Mongols in 656 H and paid tribute in gold in 656, 657 and 658 H.[130] The coinage did not mention Hulagu; but Lu'lu' started the inscription on the top line of the Obverse, and Mongka's name began the top line of the reverse. The other principalities of the eastern Jazira submitted as Hulagu departed on his Syrian campaign. In Mardin, Qara Arslan struck copper in 657,[131] 658 and 659 H stating his name and Hulagu's. Hisn Kayfa also struck copper probably in 657 or 658 H. The area was secured and compliant, presenting no challenges.[132]

Retrenchment in Tabriz

Although new territory was important to Hulagu, he had major problems with the already existing imperial system. Soon after capturing Baghdad, he went north to attend to crucial affairs in Tabriz. One of these, from Mongka's perspective, was Hulagu's main task: namely to achieve firmer authority in Greater Iran. To accomplish this, Hulagu had to re-assert Mongka's financial organization, which had dissolved with the Jochid decline in power and the governor's absence. Hulagu succeeded quickly and remarkably well, making sure that the poll tax or *qubchur* was so stringently enforced that the system, with the same design and inscription cited above, remained intact for another twelve years until 668 H. Nevertheless, to indicate the revitalization of the system in 656 H, the minters gave the reverse of the coin a new variety of hexagon. They simply shifted the two triangles 90 degrees, each standing on a point with one of its sides vertical to the rim. This gave a flat bottom to the inner portion. The new type, however, indicated little more than internal but necessary changes in bureaucracy.

The first of these modifications related to production procedures. Since the beginning of the Hexagon coinage in 650 H, external monies had played a factor. Various practices and developments in production are revealed by the amount of spread the minters allowed individual coins to deviate from the prescribed weight. From 650–61 H, the curve peaked in the centre at 2.83 grams and had sharp drops at 2.74 and 2.89 grams, a spread of approximately one-half of a carat on each side

of the prescribed standard.[133] This spread was a reduction by half from the Horseman coinage but equal to the earlier Bow series. Outside the main curve, there are spikes that indicate that practical necessity forced Sadr al-Din in 650 H to quickly establish Tabriz as the major mint and specifically as a purely Mongol one. Therefore, one spike indicates that he seems to have re-used tribute from Rum with its unit at 2.92 grams. Now in 656 H, as the weight of many Tabriz coins shows, Tabriz again followed the same process but this time added two different coinages. It apparently simply restamped pieces lying in the treasury from the Tiflis tax of the previous year at 2.51 grams and some of the current Baghdadi booty at 2.87 grams. People accepted all of them because the mint seems to have substantially reheated a large number of these flans but not recut them, a process which erased the underprint while keeping the weight. Taking into account both extra coinages at each end, a spread of one carat or 0.18 of a gram, as already noted, existed from the mid-point; yet the centre matched the decreed official weight of 2.83 grams. Nevertheless, fresh coin was struck, as before, to one-half carat of the standard. Although re-stamping imported Saljuq, Bagratid and Baghdadi money significantly widened Tabriz's weight limits, later in the same year of 656 H, the range was reduced when Tiflis raised its coinage to 2.75 grams.

In other adjustments, Hulagu expanded the central mint by appointing numerous officials. Sadr al-Din needed the increased manpower to solve the massive problems that were arising from incorporating all the various regions under Hulagu's control. The central mint, now responsible for taxation over a more expanded area, needed a stronger bureaucracy; and the second major change of 656 H gave it that power. Although there is no textual evidence that describes the policy, officers or their functions, the coinage provides clues to them. The coins display special marks, which shadow the anonymous people behind the ensuing policies. Hulagu inaugurated the system of insignia with the Hexagon series; and it continued until Ghazan Khan's reform in 696 H, a period of forty years.

These people can be detected only from slight additions in the field of the standard die over the years, which consisted of a distinctive ornament for each individual. Such a method of identification was the only way to insure quality since the imperial type did not and was not planned to change as the ruler did. The personal mark or *tamgha* in the field acted as proof that the coin was authentic, and it was the only way to distinguish the individual responsible for the money used in taxation.

At the beginning of this process, the financial officials put marks near the centre of the obverse field over the long *dāl* of *Muḥammad*. These insignia were the relevant signs of authority; and there was a great variety, particularly in 656 H, until they finally settled into a discernible pattern during 658 H. In that year, one emerged triumphant, a star, which lasted into 661 H. Then from mid-661 into 665 H, the *tamgha* was a rounded flower, like a daisy, with a complimentary one on the reverse. After that, from mid-665 H to the end of the Hexagon series in 668 H, a single thunderbolt or curved trident, resembling a fleur-de-lys, sat in the middle. These *tamgha*s were large and bold, being so presumably to identify an important person, the main financial official. In this study, these people are called mint masters

or financial directors in a loose way; they were probably not connected directly with weighing and stamping but were definitely involved with implementing directives and ultimately were responsible for quality control. As different policies unfold, so too one mark often replaces another.

At Hulagu's arrival in Adharbayjan in early 656 H, the Tabriz mint had not operated for two and a half years. Then in contrast, it began to issue large amounts. For the city to achieve such copious production, the mint seems to have had two, sometimes three, people in charge because two or three marks appeared simultaneously on the dies. Some of these insignia arose on later issues, as though this initial period was a training time. Changing quickly in 656 H, this bevy of officials rotated at different intervals, about every month or less according to the number of combinations on the coins. Consequently, these *tamgha*s indicate a feverish and chaotic period at the central mint, which along with the wide weight tolerance soon caused the mint to close. It did not issue anything in 657 H, but rather the diwan moved to Hulagu's camp in Arran to consider the state of affairs. A single known coin appeared in 657 H at Ganja with the previous type of Tabriz, the flat-bottomed hexagon.[134] Like the fleeting issue at Hamadhan with the same Tabriz type, the Ganja issue also shows that the mint director took his master dies with him when he visited the ruler. The issue seemed like a ghost since Ganja had not been allowed to produce since 642 H and was not to strike again until 685 H. It was as though the Mongol mint found strength in an old haunt while contemplating the way forward. During the year of 657 H, military activity was also quiet while the civil administration underwent major consultation.

Pan-Mongol–Iranian reform, 658 H

Officials set the reforms in motion the next year, in 658 H, which coincided with Hulagu's new campaign. Nevertheless, first, they needed a transitional period. That involved, once again, many people, as noted by the numerous marks on the dies. Then, only one emerged, an asterisk, as Master Star assumed the directorship. He had not been among the group working in 656 and early 658 H and seems to have appeared only at the end of the 658 H transitional period, probably after Mongka Khan's death. Although the loss of the great khan might have allowed Hulagu to change imperial directives if he had been so inclined, it did not affect policy whatsoever. Instead, previous difficulties at the mint and Hulagu's new conquests called for reform in themselves. To achieve this, Hulagu put a single individual in charge, thereby creating a tighter hierarchy of authority more directly responsible to him. As important as the benefits were of such an arrangement, it was the timing that unexpectedly turned out to produce the most propitious benefit. The situation in Mongolia was dangerously fluid with princes holding various and wavering allegiances to possible new khans. This well-timed bureaucratic reform in Tabriz ensured that Arghun, still the imperial governor, would be able to institute important policies more quickly and efficiently. The region would not disintegrate as it had done after the death of the previous khan.

Mongka Khan died in Ramadan of 658 H, the ninth month, or August of 1259 AD while Hulagu was on campaign in Syria. Prepared for full conquest, Hulagu had brought a separate diwan with him, as noted above. Nevertheless, progress on both the military and civilian fronts was cut short. Once Hulagu heard of the death of his brother, he turned back to Adharbayjan with most of his forces and faced the absorbing politics of succession.[135]

Nevertheless, all of the monetary activity cited below occurred in spite of Mongka Khan's death in 658 H; and, perhaps partly because of it, his death did not alter the basic policy at Tabriz. The coinage had never mentioned Hulagu nor Mongka, so the khan's death was irrelevant to its inscription. Instead, the Chingizid tradition remained sacrosanct for the legends; and the Adharbayjan system continued to use the same weight. Another civil war followed the death of Mongka Khan, lasting until Khubilai, the brother of both Mongka and Hulagu, was formally invested in 664 H. Unlike the interregnum after Guyuk's reign, during which there had been no minting, coins continued to be issued during this period. The presence of Hulagu in the third province was the steadying factor: not only did Tabriz continue to produce but so did Hulagu's new territories of Baghdad, Tiflis and the Jazira, as discussed below. Further, Hulagu soon expanded imperial financial control over other parts of the third province, specifically Greater Khurasan, Mazandaran and Fars.

Mint administration: Master Star, 658–61 H

With the appointment of one director in 658 H, the government started to move forward. Master Star faced five significant challenges during his period of tenure from 658–61 H. The first one was refining the mint system of Tabriz. The second was reopening Baghdad. The third was dealing with the first signs of Jochid–Toluid conflict in Khurasan and Gurjistan. The fourth was delineating a frontier with the threatening Isma'ili enclave near Damaghan, and finally the fifth was incorporating the Jazira. All required determined responses, and some of them needed new approaches.

TABRIZ

The first challenge was the mint system at Tabriz. The place had already been revived, but Master Star immediately began to transform it. He signalled the move by replacing the inner flat-bottom field of the hexagon with the former pointed-bottom one. It announced, as had the change before, only internal bureaucratic developments, this time of the new tight and hierarchal system.

'IRAQ-I 'ARAB

Meanwhile, 'Iraq-i 'Arab had waited for royal attention and a firm policy which finally came as Master Star appointed a separate diwan to it late in 658 H. The

department pursued a different policy from that of Tabriz and eventually issued a much simpler coinage than the immediate post-conquest money. To start in 658 H, Baghdad struck gold and silver as charted later in this chapter by Table 5.1. The weight of the half and single silver unit stayed the same, but the gold was issued at random weights ranging from 4.10 to 9.58 grams. The calligraphy of these coins was distinctly different from that of the first master, now exhibiting rigid monumental kufic rather than fluid cursive letters. The obverse continued to have the same inscription for both gold and silver of *Lā illāh Āllāh/Muḥammad rasūl Āllāh/ṣallā Āllāhu 'alayhi/wa sallim*. The reverse slightly altered the order of the original phrases to read *Qā'ān/Mūngkā Qā'ān/Ā'ẓam/Hūlāgū/Khān*. The standard minting formula was always in the reverse margin and sometimes also in the obverse one at the same time, as illustrated in Plate 5.6. In 659 H, Baghdad dropped the half unit, producing single silver and gold from that date through 661 H. Although the diwan simplified the system from the initial conquest one, it still had a large task to implement and sustain the enormous output.

Simultaneously in 658 H, Master Star's 'Iraq-i division dealt with Irbil. The city produced only the single silver unit, keeping it at 2.92 grams and using the same design approved for Baghdad. This arrangement copied the 'Abbasid mint structure, in which only Irbil and the capital had struck money. Irbil's unit weight thereby stayed on par with the Saljuqs during this early Hulaguid period. Until 665 H, not only did Irbil retain its weight but it also kept its inscriptions as the rest of the area underwent reform, indicating that it had a special status.[136] In 659 H, Irbil finished issuing the single and then began to provide the half unit. The two denominations basically alternated, the single in 658 and 660 H and the half in 659 and 661 H, as noted in Table 5.1. They all had the same legends, reduced in size for the half. In 661 H, a policy shift matched by events elsewhere made it issue copper for the first time, the city taking the insignia of a hare on the obverse.

Both sites produced a massive amount of coinage for the northern and southern areas of 'Iraq-i 'Arab, strongly indicating that there was great need for a means of paying customs dues. The two mints had started well in a range of useful coinage for the market. Over this initial period under Master Star, they had copper, half and single unit silver and gold issues.

Obverse

Reverse

Plate 5.6 Mongka – Hulagu type (Baghdad) (Date 659 H; weight: 2.86 grams; metal: silver)

Source: © Copyright The British Museum 1969.5.12.15. Actual size.

Greater Khurasan

As for the third challenge, Master Star made sure that the third province's north-eastern region of Mazandaran was under central control. The area was somewhat insecure, still having a number of Isma'ili strongholds in the mountains.[137] The chief city, Damaghan, had issued as a vassal in the *tamgha* system and now reaffirmed that status with an electrum issue in 658 H. However, in both cases, the legend was dictated by the Mongol director. The coinage cited the *shahada* on the obverse and *Qā'ān al-ʿĀdil al-Āʿẓam* with the mint below on the reverse.[138] Moreover, the coinage was perhaps a political response to Chaghadaid challenges, including the group's defiance of Khubilai as the great khan.

Unfortunately, no sooner had Master Star restructured Baghdad and received payment from Damaghan than, in 660 H, he had to make two further adjustments. These were so major that Tabriz did not mint that year at all. Events elsewhere in the realm required all of his attention.

Beginning of the Jochid–Toluid conflict

In 660 H, Master Star needed to deal with the consequences of royal intrigue. Three Jochid princes had died in Hulagu's camp: one as the result of being tried and convicted of sorcery; and two had expired mysteriously, ostensibly from poison. Added to previous Jochid maladjustments and internal rivalries after Batu's demise, the deaths of the princes created more problems and threw the two hordes of Hulagu and Berke or the Toluids and Jochids into direct conflict. Boyle iterates the course of events in the physical confrontation:

> After the death of the princes their troops fled, some by way of Darband to the territory of the Golden Horde (their ulus), others by way of Khurasan to the Ghazna region, led by a general called Nigudar (Nuguder), whence the name of *Negūdarīs* by which they were afterwards to be known. The flight of these troops was apparently consequent upon a battle fought at some time in Shawwal 660/August–September 1261. It was at about the same time, on 2 Shawwal/20 August, that Hulegu set out from Ala-Tagh to meet Berke's [son of Batu[139]] army which, led by the famous general Noqan (a kinsman, as Rashid al-Din is careful to point out, of the dead Tutur, one of the dead princes), had advanced southwards through Darband and encamped in the region of Shirvan to the south of the south-eastern spur of the Caucasian range. Hulagu's advanced forces made contact with the army at Shamakhi in Dhu'l Hijja/October–November and suffered some kind of defeat. (A second encounter they won.) A force followed the retreating army across the Terek River where they found the deserted but well stocked camp. Abaqa [Hulagu's son] and his contingent feasted for three days and were then attacked by Berke in person at the head of a great army. Not only were they overwhelmed by the numbers of the opposing force, during their retreat across the frozen Terek the ice gave way and many were drowned.
>
> [Berke kept to the north of the Terek. Hulagu retired to Tabriz.] He began elaborate preparations for the renewal of the campaign against the Golden Horde, but in the end, it was his son and successor Abaqa who liquidated the war with Berke.[140]

After Berke's defeat of Hulagu's forces north of the Caucasus, the Toluid khan harboured suspicion of any Jochid. Soon after, in 661 H, he retaliated by massacring the Qipchak merchants residing in Tabriz.[141] Only the death of Berke in 665 H, en route to Tiflis for a crossing of the Kur River to confront Abaqa, ended this first series of embroilments between the Jochids and Toluids.[142] Meanwhile, the Kur became the effective boundary between the two groups.

Gurjistan

Therefore, the river was the northern limit of Hulagu's domain; but, since it ran through the middle of Tiflis, it exposed the city to great danger and intrigue during this period. The region had already been a tinder box of problems that could have spread havoc. The revolt of the Georgians from 659 into 660 H had been quelled during the Shirvan campaign. Earlier, as Hulagu had arrived in Iran, David Ulugh had fled to establish his rule in the west. Therefore, Hulagu had put David V or David Narin on the throne at Tiflis in 656 H. However, the Mongols controlled only eastern Georgia; and the kings of each region often supported each other in conflicts with the Mongols. Soon in 660 H, a Tabriz official arrived to control Tiflis more tightly and its mint completely.[143] He forced Tiflis to abandon the *Mūngkā Qā'ān* type of the Batu–Arghun agreement and accept Tabriz's anonymous *Qā'ān al-ʿĀdil* inscription in Tabriz's discarded 656 H flat-bottomed hexagon as illustrated in Plate 5.7.[144]

Obverse Reverse

Plate 5.7 Hexagon combination type (Tiflis) (Date: 661 H; weight: 2.74 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

With slight modification, this type lasted for twenty years in Tiflis, until 680 H, longer than the other Hexagon did in Tabriz itself. The unit weight remained at 2.75 grams. The new type appeared in 660 H, and the standard five collections were taken in Muharram, Rajab, Shaʿban, Shawwal and Dhu al-Qaʿda. Therefore, Hulagu rendered the normal payment to Berke that year. However, once open conflict erupted at the very end of the year, he abrogated the agreement. After that, until Hulagu's death, only two collections a year took place,[145] presumably the amount normally rendered to the coffers of Tabriz. There were fewer collections each year, but they were still spread over the whole year. Then collections doubled by 666 H and developed a different schedule for the remaining period.[146]

Greater Khurasan

The other group retreating from the battle with Hulagu in Shawwal of 660 H had fled east across Khurasan.[147] As Master Star had taken over the Tiflis mint to define the territory Hulagu ruled for his family, he also re-established the Khurasani mints to lay claim to that area. Although minting had occurred there just two years earlier in Damaghan, this disruptive internal situation required further attention. In 660 H, he opened the three mints of Tus for Khurasan, Astarabad for Mazandaran and Naysabur for Mongol-directed territory, all producing silver. The first to mint was Tus, using the flat-bottomed 656 H Hexagon dies, which said *Qāʾān/al-ʿĀdil*.[148] Again, these were taken from the official storehouse. Then, the diwan moved to Astarabad, at which it finished the type.[149] After that, it used the current Tiflis reverse cartouche with a pointed bottom but put in it *Qāʾān a/l-ʿĀdil a/l-Aʿẓam*.[150] The diwan then proceeded to Naysabur. It had finished the previous dies but kept the basic legend, putting *Qāʾān/al-Aʿẓam/al-ʿĀdil* in a square.[151] As for the obverses of these mints, Tus used its own style of a quatrefoil inside a square inside a circle, bearing the short *shahada* in three lines and the mint repeated in each corner, a style it had favoured over the years. Astarabad took the simpler Tabriz design of a square-in-circle, in which the short *shahada* filled two lines and the third said *ʿĀlī walī Āllāh*. By the time the official reached Naysabur, he put the Tabriz design of square-in-circle on both the reverse and obverse; and the obverse inscription followed Tabriz's simple *shahada* in three lines. Therefore, the three mints not only had different obverse designs, which visually distinguished them immediately, but their inscriptions also varied significantly. Although each city had an important role in the region, three factors suggest that Naysabur was the chief site. The first one is that most extant coins are from the city; second, it minted not only in silver but also in copper.[152] Both of these points suggest that it was more active than the others were. Finally, the sequence of dies indicates that the official party halted at Naysabur after the first round of collecting taxes in the north. The stop leads to the possibility that the city stored the accumulated revenue in an imperial treasury. All these aspects reflected a substantial drive to re-create direct government in Khurasan. After Kirgiz, Sharaf al-Din and lastly Arghun's interest in rebuilding

from 644–6 H, imperial interest in Khurasan had shifted to Arran and Adharbayjan. Now, a nascent regional policy emerged with Naysabur, apparently, as headquarters.

The re-opening of the Khurasani mints in 660 H provides an indication not only of the extent but also of the limit of Tabriz's new economic thrust. Its control is best exemplified by the design characteristics of the coins. They were mint-specific, which partially followed the Zabulistani habit of changing marginal outlines to distinguish each site as well as each year. At this point, Master Star elaborated the original practice with completely separate obverse designs for each, which were reinforced by the mint name on that side only. The variety of designs is so striking precisely because the inscriptions were so similar. In contrast, the reverse inscriptions were not similar but slightly different. Nevertheless, significantly, the reverse design and even the first dies themselves were direct imports from Tabriz. This transfer was a significant development as it sent out-dated dies from the storehouse first and then some current ones. The support was important because the reverses held the most important message, namely that every mint was Tabriz's dependent; yet the capital did not attempt at this time to establish a universal type. Instead, Master Star was taking but the first steps towards that goal by using a common and recognisable symbol, that of the Tabriz hexagon and square.

The new Khurasani coinage nor only had to relate its type and metal to Tabriz's system but also its weight standard. Therefore, the diwan introduced a change at this time which ultimately brought it into line with Tabriz's registers. Khurasan traditionally struck at 18 carats or three-quarters of the light mithqal of 4.125 grams. However, in 660 H, it reduced its coinages to 2.75 grams or 16 carats of the same mithqal.[153] Once the coin weighed two-thirds of the mithqal, it was able to be integrated into the Tabriz system of calculation to make comparable records. Although the mithqals were not yet the same, Arghun and Master Star could keep the tax records for Khurasan and Dhihistan in the same manner as those of the centre and their revenue held as part of the imperial treasury's poll tax.

The Jazira

Unfortunately, the Greater Khurasani system folded after one year probably due to the demands made on Master Star and his officials by a new place, al-Mawsil in the Jazira. This mint came under direct Mongol control late in 660 H after another political challenge to Hulagu's authority.

In al-Mawsil, the veteran Zengid politician, Badr al-Din Luʾluʾ, had died in 659 H, a year after Mongka Khan; but his son, Ismaʿil, was not as successful at power politics. Aligning himself with the Mamluks of Egypt, Ismaʿil had revolted and struck gold[154] as one of his defiant gestures. Although the Mamluks had won their battle against the Mongols at Homs a year earlier, Ismaʿil was not as fortunate. In 660 H, the Mongols sacked al-Mawsil; it lost its vassal status and became sovereign Mongol territory. The event was not just another successful military campaign for the Mongols but one of the signposts on the way to regional

administrative reform. In political arrangements before this period, Arghun had left local dynasties in charge by replacing a rebelling individual with a more compliant relative. However, starting with the conquest of Baghdad, Hulagu had set a new pattern of royal management: he abandoned the practice of divide and rule and adopted one of direct control. This practice had affected Tiflis earlier in the same year when joint rule had been limited to one David; and, now, it was re-confirmed in al-Mawsil. The process of amalgamating the Jazira with Tabriz produced an immediate and crucial consequence: the Jazira became financially dominant over its southern neighbour, ʿIraq-i ʿArab, which had been conquered only four years earlier. Thus, Master Star was compelled to undertake a complete overhaul of the monetary structure of the wealthy Hulaguid territories of the Jazira and ʿIraq-i ʿArab.

Without any question or hesitation in 660 H, the al-Mawsil mint issued a thoroughly Islamic coinage in all three metals, as charted in Table 5.1 later in the chapter. The gold had on the reverse *Mungū/Qā'ān al-Aʿẓam//Hūlāgū Khān/al-Muʿaẓẓam* and Sura iii:25 in the margin. The obverse carried the long *shahada* in the field and full minting information starting at 1 o'clock in the margin. The silver followed the gold exactly but later developed slight variations. The copper had the same reverse as the others, but the obverse contained an image, a head in profile within a square, with the mint and date around the sides. The next year in 661 H, al-Mawsil again issued gold and silver and concluded the series with copper early the next year. The coinage was an impressive statement since not even ʿAbbasid Baghdad had produced a full trimetallic range of currency. The authorities paid as close attention to al-Mawsil henceforth as they did to Tabriz. They were intensely concerned with the time it minted, its weight standards and, in particular, its inscriptions. From 660 H, al-Mawsil became the Mongol financial capital for trade with the southwest. The coinage is prolific and requires an intricate study that, unfortunately, lies beyond the scope of an examination concerned chiefly with the Mongol capital of Tabriz. However, when Jaziran activities affected central management, the following pages give full attention to events.

As a result, by 661 H, Master Star had established additional revenue departments in Tiflis, Astarabad, Tus, Naysabur and al-Mawsil. He had taken one year, and then he returned to the capital. Tabriz again started to mint according to its reliable but frozen system. Therefore, by 661 H, Tabriz had successfully announced the Toluid boundaries of the realm to the Jochids and Chaghadaids and retained its royal distinction through its heavy weight and unique coin type.

Master Daisy, 661–5 H

The necessity to subdue al-Mawsil, however, created a major test for the structure of government in the Hulaguid regions. The need was certainly one of the reasons Master Star had departed from Tabriz. Since he probably stayed in the Jazira, a new director was required for the capital. Soon, from mid-661 H into 662 H, a transitional series appeared that had both a star and a flower-like roundel. At the same time, but much more profusely, another series emerged with only the flower. The two issues suggest that Master Star was away from his post a good deal before actually leaving it. The new person, Master Daisy, stayed in office until 665 H. His four-year administration constituted the middle period of the Hexagon money.

The financial administration always reflected political events. In the first period of the Hexagon programme, the government's efforts had been aimed particularly at consolidating into regular procedures the emergency measures taken after the disruptions from cataclysmic battles and court intrigues. The process had been a continuous one, gradually affording the diwan more power and expertise over time. At the beginning of the 660s, a two-year political shakeout had led to the tightening of Hulagu's control. First, Hulagu had removed Jochid adherents. Then he had overhauled the civil administration. At the top, he had installed the new financial controller in 661 H, as noted above, and had appointed ʿAta' Malik Juvayni, the historian, to the governorship of ʿIraq-i ʿArab in Baghdad. Although Juvayni's brother was the wazir or *sahib diwan*, Shams al-Din, ʿAta' Malik's appointment should not be viewed purely as a case of nepotism. Hulagu had a fresh policy and needed to shuffle some bureaucrats to assure its implementation. On the other hand, Hulagu had retained many experts in their posts: for example, he reaffirmed the Persian, Sadr al-Din, Arghun's deputy, at this time as the governor of the region of Tabriz.[155]

Hulaguid territories

With the new mint director, policy shifted. The former combination of gold and silver ceased by the end of the year in both al-Mawsil and Baghdad. Henceforth, generally only silver was produced. Almost immediately upon Juvayni's appointment, the directives of the new mint master came into force. In 661 H, Juvayni reduced the activity of the mint to issue only single silver, still at 2.92 grams. In 662 H, Irbil joined Baghdad by issuing single silver. It also continued the same type of 658 H, issuing it at the same weight of 2.92 grams. This simplified policy for the region lasted until 666 H.

In the Jazira, individual mints also toned down their activity; but the actual number of sites increased. In 661 H, probably late in the year, al-Mawsil issued silver also still at 2.92 grams. Then a brief and ancillary copper policy appeared. It started at Irbil briefly before the city rejoined Baghdad's programme. Then copper production moved the next year to Sinjar and al-Mawsil. All the copper mints in the consortium identified themselves by using a unique image. Sinjar had a design of a Byzantine-style ruler draped in a mantle. Irbil had a variety of hares; later most of them were in association with a crescent moon. Al-Mawsil continued to have a head facing left inside a square. Then, probably near the end of 662 H into 663 H, al-Mawsil was the only mint in its region and struck only the single unit of silver. Therefore, from late 662 H, both in the northern and southern areas of the directly-supervised Hulaguid territories, Master Daisy had simplified production to the single silver coin.

In addition to the main centres, he re-imposed a programme over the vassal states in the area. In general, they struck only copper. In 661 H, the malik of Mayafarraqin issued that metal with his name in the obverse margin, not in the field. The former Ayyubid town of Hisn Kayfa again minted copper and perhaps silver in 662 H. The coins had *Hūlāgū Khān* and the local ruler's name in the field. The Artuqid principality of Mardin had issued copper in 659 H but nothing since. It now struck silver, perhaps in 662 H; the legend does not contain a date. These were limited issues, and the few extant coins do not provide enough material to determine the weight pattern. All activity among the vassals stopped, however, after one year. Thus, in 663 H, only three mints in Hulagu's new territories struck money. They were al-Mawsil, Baghdad and Irbil, producing just the single silver unit. The region had joined Tabriz's metallic policy, but its registers were not yet integrated with those of the capital.

Tabriz

Prior to Master Daisy's tenure, money from other mints had readily entered the central treasury and had sometimes even been re-stamped with the Tabriz die. However, Tabriz could not afford to absorb regional currencies much longer. If it did, the value of its own coinage as well as the validity of its accounting system and tax receipts would suffer inexorably. As a result, Master Daisy, in the years from 661–5 H, applied tighter production controls so that in the third period of the Hexagon coinage no re-stamping of other issues occurred in Tabriz. From then on, the city usually made new flans for all of its coinage.

The necessity to control the whole manufacturing procedure was caused by a further development, society was becoming increasingly monetized with coins circulating more and more beyond the confines of the regional issuing authorities. Although Master Daisy began to solve exchange difficulties by improving quality control, local people found an old technique to make the capital's coins fit the standards of lower regional markets. Their method was to shave the coins, quite precisely. In subsequent years as Tabriz lowered its weight and subordinate mints followed, its former coins continued to be clipped to the new standard both within the Tabriz region and in areas beyond it. The practice presented a new problem to the central bureau.

Master Daisy's initial difficulties with wider transaction areas can be surmised from a study of the distribution curves of coin weights. The analysis shows that the increased interaction between the Jazira, Gurjistan and the capital affected each region's coinage. Since the Tabriz unit weight was mid-way between those of al-Mawsil and Tiflis during this period, people adjusted coins around the Tabriz weight. They shaved a number of (old) Jaziran coins down from 2.92 grams to match those of Tabriz, and they clipped Tabrizi coins to fit the lower Tiflis weight of 2.75 grams. However, they did not clip Jaziran coins to fit the Tiflis standard, indicating that currency and payments were funnelled through Tabriz. The graphs give no sense of direct contact at this point between the Jazira and Gurjistan,

either in commerce, banking or fiscal payments.[156] On the other hand, the coinage of Tabriz was gaining substantial ground as the main medium of exchange.

Fars

Having successfully weathered the various storms, the Tabriz diwan next began to extend firmer control over Fars. The Salgurid atabag, Abu Bakr, had avoided both Khwarazmian and Mongol intrigues during his long reign from 628–58 H. However, the behaviour of his fourth successor, Saljuq Shah (661–3 H) caused the intervention of a Mongol army. He fled to Kazirun, in which he was captured and killed. As a result, in 663 H, Hulagu granted the throne to Abish, a granddaughter of Abu Bakr and the daughter of his first successor, Sa'd II. In this case, Hulagu did not take complete control of the region. Instead, he made it a royal appanage by marrying her to his eleventh son, Mengu-Temur (b. 656–81 H), which effectively made her the last of the Salgurids. She relinquished her throne twenty years later in 683 H, two years after the death of her young husband.[157] To announce the puppet regime in 663 H, Tabriz introduced its former Hexagon with a flat bottom. Although the figure was like the current one at Tiflis, it consisted of only a single line on the obverse; and the metal was copper. These points announced a close relationship to Tabriz but also emphasized a financial distinction. The reverse had, in a circle, the Tabrizi inscription of *Qā'ān al-ʿĀdil* with the mint and date[158] while all the obverse types carried *Abish bint Sa'd* in the hexagon. An extraordinary symbol, the Chinese *pao* character for "money", sat in the centre of the obverse.[159] Presumably, this reflected the dynasty's cultural and trade contacts with the Far East. One route of communication may have been overland since the Salgurids were a Turkman tribe from the steppes and had established themselves in Fars in 543 H/1148 AD. Another and probably more important route was by sea. The Salgurids encouraged trade with China through the gulf via their entrepot contacts on the Malabar Coast of India.

The financial structure in Fars was not stable, however. Soon a new issue appeared, which switched the designs to opposite sides. The obverse had *al-mulk li-llāh* with mint and date and the *pao* character in the centre. Now, the reverse gave a title to the dynast as *Atābag/Ābish* in the hexagon.[160] After Hulagu's death, another copper series with no mint or date but probably from 665 H was issued in a different reverse. It had a slightly modified form of the normal silver inscription of ʿIraq-i ʿArab, to be discussed in the next section, with *Qā'ān al-ʿĀdil/Il-Khān Abāqā al-muʿaẓẓam Ātābag/Ābish* in the obverse hexagon.[161] Then in 665 H, along with other reforms in the region, Shiraz was upgraded to silver. However, the style of the inscription stayed the same. It had *Atābag Ābish* underneath the short *shahada* on the obverse and just *Qā'ān al-ʿĀdil* with the mint, date and *pao* character on the reverse.[162] In this issue, there was no hexagon on either side. Then this vassal coinage ceased with its confusing plethora of types. Abish may have been a puppet, but the Salgurids had gained status. From 663 H, Tabriz allowed the dynasty to mint and, thereby, to pay taxes. This activity was in sharp contrast to the past,

during which Fars was a tributary state. Previously, one brief issue had been to honour the Batu–Arghun agreement in 650 H. Then in 658 H, Abu Bakr had visited Hulagu to receive confirmation of his position[163] and to make a single tribute payment. That silver emission gave Hulagu the title of *Pād-i Shāh-i Jahān*.[164] Master Daisy, by currently giving Shiraz the right to mint even if only lowly copper, signalled that the tentacles of Mongol central administration now also clasped Fars.

Nevertheless, Fars had an unusual legal position, leaving the function of the money open to question. The design indicates that a poll tax should have been taken from the province, but the Chinese character indicates its use in trade. Further, the metal suggests that the coinage was used only for local collection and disbursement. Since calculating the poll tax in copper, in particular, would have been impossible in the existing imperial system, the monies probably accrued to the household expenses of Hulagu's son. Therefore, such a situation meant that Abish was a member of the royal family and used that income to support it and her local Mongol administration in the province.

Death of Hulagu

The incorporation of Fars was the most significant activity in the middle of Master Daisy's tenure. Nevertheless, he exhibited his most remarkable skill at the death of Hulagu later in 663 H. He did not let the system fall apart even though the person enforcing it had left the scene. Upon the khan's death, as upon Mongka's, the mint master continued the same monetary policy. Tabriz and Tiflis said *Qā'ān*, Baghdad said *Mūngkā* and *Hūlāgū* while al-Mawsil, quietly dropping *Mūngkā*, kept *Qā'ān al-Aʿẓam* and *Hūlāgū*. In addition, Master Daisy did not alter weights. His steadfast policy was a tribute to Hulagu's leadership and Arghun's stewardship. Khubilai, the imperial khan, was not enthroned until the following year, which had meant that from 658–63 H Hulagu had been the most secure and perhaps the most powerful member of his family. He had striven to retain its position by assuring it and himself a solid base in the west.

Abaqa, 663–80 H

Administration, 664–8 H

The year 664 H saw not only the formal accession of Khubilai to the imperial throne but also Hulagu's son, Abaqa,[165] to the regional one of Greater Iran. Similar to his father, who had assumed imperial Mongol interests in the west, Abaqa did not abandon established monetary policy. He retained Master Daisy in his post and kept the types frozen or little changed at all his mints. This action reflected standard Chingizid tradition, in which former practices were sometimes incorporated into the *yasaq* or law code: for example, upon his accession, Ogedai had immediately ordered that all of Chingiz Khan's edicts and personnel be retained.

However, these had needed to be formally endorsed eventually by his own decree. At the time Guyuk became khan, he, too, commanded the same continuation although a number of princes had begun to establish their own following. Mongka had also honoured the practice and adhered to the laws of his predecessors. In each case, a written document was made re-investing a person in his position or declaring the purpose and rules of the law. Thereafter, these laws and practices could be altered, in general, by mass meetings or *quriltai* that lasted for weeks, sometimes months. At these, representatives attended from the entire empire. Under a unified realm, the system ran smoothly; but when the khanate was disjointed, the *yasaq* grew less clear. As a result, Khubilai did not make such a statement or have an empire-wide *quriltai* because of difficulties with rulers on the central steppe. Nevertheless, the same ethos prevailed at his accession; and the main points of the *yasaq* continued. Each khan kept to custom as much as possible; but, with the chief family relegated to the edges of the empire, the *yasaq* would no longer grow as it had under the first four rulers. This development did not take long to affect financial affairs in the third province.

Under the traditional concept of the *yasaq*, Abaqa started his reign; but he ended it with a revolution. He was formally invested in 664 H, a year after Hulagu's death; and only then did he reconsider his father's financial policy. He did so within the standard mourning period of a year, which had developed from the practice that exempted a family from taxes for a year after a death,[166] and no member of the deceased's family could enter the presence of the khan for a year. Once the year had passed, Abaqa's first task was to re-organize the Hulaguid territories. Then Berke re-kindled his threat and tried to unseat the new ruler. Abaqa marched north to confront the Jochid, but war was averted when Berke unexpectedly died in 665 H. The confrontation was a test of the loyalty of the Georgians, who apparently proved their allegiance. Tiflis was allowed to reduce its coin to 2.61 grams or 14 carats and remained at that weight until the end of his reign. However, to compensate, the number of collections increased. Next, Abaqa appointed Master Trident, who took the emblem of a fleur-de-lys. Right from the start, Abaqa was actively involved in continuing to form a strong and integrated state.

Master Trident, 665–8 H

The new official was the last director of Mongka's poll tax. He basically retained the policy of his predecessor but modified several factors. His main aims were to tie the regional coinages, particularly those of the Jazira and Gurjistan, more closely to the central administration and to improve quality control in Tabriz. He succeeded in his tasks until major military and political challenges erupted two years later in 667 H.

Tabriz

During the third period of the Hexagon coinage, little changed in Tabriz except for the method of production. Quality control became less stringent in one way

and more so in another. The limits within which a coin left the mint were increased from half a carat to slightly less than one carat. However, the peak rose suddenly at 2.82 grams and sloped to the right. A new technique was being tested that provided a more stringent policy against underweight coins.

Hulaguid territories become the Il-Khanate, 664–8 H

The new director found the Hulaguid territories his main challenge. He continued the monometallic policy begun by Master Star, but he restructured the regions of Baghdad and al-Mawsil. In 664 H, with the conclusion of the official mourning period and the accession of a new khan, the political status of the region became clearly defined by a new inscription; and the mint organization was expanded. Prior to 664 H, the mints in ʿIraq-i ʿArab and the Jazira had had a single administration with sub-divisions, which had focused on silver. Every mint had the same reverse formula of *Qāʾān/al-Aʿẓam/Mūngkā Qān/Hūlāgū/Khān*, and the silver unit was the same weight. Copper, meanwhile, had contained regional variations because generally local dynasts had issued it. Master Trident now divided control of Hulagu's territory, splitting Baghdad and al-Mawsil into distinct regions, each with a new type and separate policy. The following discussion is condensed into Table 5.1 on pp 175ff..

INSCRIPTION AND PRODUCTION

The change took place first in al-Mawsil in 664 H. The inscription removed Mongka's name, leaving his title, and gave Hulagu a new one of *Il-Khān*. Therefore, it read *Qāʾān/al-Aʿẓam/Hūlāgū Il-Khān/al-Muʿaẓẓam/Jzyr* as illustrated in Plate 5.8, which was issued in the alternate years of 664, 666 and 668 H. Al-Mawsil may have also struck a commemorative gold issue in 664 H, but details are lacking.

In late 664 H, the regional agent expanded minting to Sinjar, which advanced its status by adding silver to its copper output. However, the silver used an old Mongka die; and the copper continued to use the same figural type as before. Although minting silver only briefly for the next few years, Sinjar in 664 H first used flans from Irbil or Rum and then seemed to use some from al-Mawsil. The evidence for this activity is two weight clusters around 2.92 and 2.75 grams. Then in 665 H, it dropped to about 2.61 grams, following the current Tiflis weight. The cost of importing silver in the form of already manufactured coin may have severely drained the resources of the government of Sinjar. After this, it stopped issuing silver and relied on its local copper mines.

After leaving Sinjar, the agent moved to Mardin. Although that city used the new title for Hulagu, it still retained the local ruler's name as well in its legend. Thus, in 664 H, the al-Mawsil official changed his dies at home, improved the status of Sinjar as well as required a payment from Mardin. However, as he covered the territory, he did not furnish the mints with dies. The regional capital did not see the need or have machinery in place to supply uniform dies; each city had to

Obverse Reverse

Plate 5.8 Hūlāgū Il-Khān type (al-Mawsil) (Date: 668 H; weight: 2.73 grams; metal: silver)
Source: By permission of S. Album. Double actual size.

make its own. Rather, he apparently brought a model that the group followed in general. His control was indicated by a symbol above the obverse inscription of all types. It was al-Mawsil's *tamgha* of a half crescent supported by a pole,[167] which is designated by Y on Table 5.1.

In 665 H, the agent stayed in Mardin for a while and then apparently went to Mayafarraqin, which struck silver from its unique hubs of its 661 H copper issue. After that, he moved to Jazira ibn ʿUmar, which, like Sinjar, struck both copper and silver. However, unlike Sinjar, it had to use silver dies on its copper, a reversal of the situation in Mayafarraqin. This was the only time Jazira ibn ʿUmar struck copper. The agent then returned to Sinjar for another round of copper and silver issues. Probably after that minting, he made the long journey south to al-Hilla although the date of the silver is insecure since it is off the flan. The diwan's extensive regional efforts during the year left al-Mawsil without any production in 665 H. However, the agent went back to the city by 666 H to mint there again. Although trips to other sites claimed the official's attention, this activity was planned so that al-Mawsil minted every other year. According to that schedule, the city had a hiatus for another year in 667 H; and then a new programme began, elaborated in the next chapter and Table 6.1.

Meanwhile, Irbil had continued its old policy without changing legends or weight and was now out of step with the rest of the region. In 666 H, its apparent ten-year-old treaty concessions were abrogated; and Master Trident closed the place down. After that, the Mawsili agent demanded one more silver payment from Jazira ibn ʿUmar, delivered to him over the cusp of 667 and 668 H. Thus, from 664 H, al-Mawsil led the region, incorporating six mints, which included two regional houses and upgrading one of those to silver. Another effect of the new administrative divisions was that al-Mawsil changed its weight. The silver unit of the group directed by al-Mawsil was lowered to 2.75 grams or 16 carats of

the 4.125-gram mithqal. The exceptions were al-Hilla, which struck at 2.92 grams, and Sinjar, perhaps at 2.61 grams. The weight of Mayafarriqin's coinage is difficult to determine because very few coins exist, but it seems to be lower than al-Mawsil's and may have joined that of Sinjar.

At the same time, events had been moving fast on the development of the legal status of the region; and legitimacy issues were being analysed and proclaimed. The region of Baghdad opened; and, in 665 H, the khan assumed the same title there that he had first granted his father in 664 H, that of *il-khān*. In Baghdad in 665 H, Master Trident inaugurated a new type, declaring that Abaqa was on the throne and the ruler of the territory. No other place took this stance, so Baghdad acted in isolation. The inscription showed the city's Islamic nature by citing the new khan and giving him a title. However, since the khan was not Muslim and did not take a throne name, a Mongol title appeared. The top two lines, however, presumably referred to Khubilai. The legend read *Qā'ān/Pād-i Shāh-i/'Ālam Il-Khān/al-Aʿẓam/Ābāqā khalada/mulkahuma* as illustrated in Plate 5.9. The issue came out probably late in the year and lasted for three more years until 668 H. Although the inscription changed at this point, the government maintained its previous policy by issuing only silver at the same weight of 2.92 grams but with a very wide remedy.

Thus, a year after Hulagu had died, Abaqa gave him the title of *il-khān* in al-Mawsil,[168] which continued to 673 H. One year later in 665 H, he developed this title into a new protocol to call himself an *il-khān*. The timing of the appearance of the title coincided with the year that Khubilai became the imperial khan. Khubilai also had the title of the Il-Khan of Tibet. Once he was enthroned, he apparently bestowed the same status on his brother, posthumously but with full regard for his loyalty and position in the empire. A year later, he seems to have granted it to Hulagu's son; so the coinage of Baghdad stated *Ābāqā Il-Khān*, festooning Abaqa with a new Mongol title.

This announcement was revolutionary since it made Abaqa the first living ruler in Greater Iran to use *il-khān*.[169] Later, Khubilai also granted it to Abaqa's brother, Tegudar. Consequently, only Hulagu and his eldest sons received the title for the territory they had conquered. Significantly, the title never appeared in Tabriz for

Obverse

Reverse

Plate 5.9 Abāqā Il-Khān type (Baghdad) (Date: 668 H; weight: 7.95 grams; metal: copper)

Source: © Copyright The British Museum 1884.7.3.286. Actual size.

any khan. The different names attached to the title in ʿIraq-i ʿArab and the Jazira pertained to another legal distinction that came to the fore upon Hulagu's death. It seems that Hulagu had designated some conquered territory as personal fiefs. He had provided territory for some junior family members, like Mengu-Timur in Fars; but he kept the best, Baghdad, for his eldest son. The Jazira was, therefore, not part of Abaqa's personal *inja* or property; so Abaqa could not put his own name on its coinage. However, since both ʿIraq-i ʿArab and the Jazira had been pacified or made *il* and incorporated into a state structure, the term applied to those associated with its conquest.

As a result of the administration's aims over the period, both sections were monometallic for five years from 663–7 H except for the three copper issues in 662, 664 and 665 H from Sinjar under Masters Daisy and Trident. The Jazira was becoming assimilated into the Tabriz system, in which registers were kept in silver at two-thirds of the mithqal. The progress, however, ceased as political events took over in late 668 H. In summary, the height of activity in the Hulaguid territory occurred in 665 H, generated mainly by al-Mawsil. Its symbol of a pole, probably representing the axis of the universe, suspending a lunar crescent appeared in the other mints of al-Hilla, Mardin and Sinjar. Baghdad and Irbil were in separate jurisdictions. Baghdad's division was signalled by a lack of insignia on the coinage and its unique Abaqa inscription. Irbil's was signalled by a strict adherence to the inscription and weight of its submission terms. These two exceptions to Jaziran authority are highlighted by the fact that al-Hilla, even though south of Baghdad, was supervised by al-Mawsil. Even so, al-Hilla kept the Baghdad weight; and in the Jazira, some variance also suggests that there was a sub-department for the upper Tigris watershed. For example, Mardin had the legend and crescent but also its ruler's name while Jazira ibn ʿUmar lacked both local name and crescent insignia. This northern sub-region seemed to receive instructions third-hand. The dynamic period ended in 667 H, Baghdad in the south finishing its cycle in 667 H and Jazira ibn ʿUmar in the north concluding its alternating cycle in 667–8 H. The territory had taken some pragmatic steps to extend financial control outside the two main centres, steps which were soon carried further.

REGIONAL WEIGHT ADJUSTMENTS

Master Trident also directed a significant adjustment of weight patterns in the Hulaguid territories. First, as already mentioned, al-Mawsil lowered its coin from 2.92 to 2.75 grams in 664 H, which continued to 671 H. Tiflis, without changing its type, reduced its weight from 2.75 to 2.61 grams in 665 H, as also already noted, which lasted until the end of the type. These decreases no longer put Tabriz's weight at the mid-point, which had allowed an easy calculation of revenues. Instead, Tabriz's coin was now higher than all of the others, following the body politic theory. Only Baghdad was marginally higher. This return to basic procedure must have been the main aim of Masters Daisy and Trident's 664–5 H actions. They were not concerned that the coinages remained on separate mithqals and divisions

Table 5.1 Hulaguid territories, 658–68 H

	Baghdad	*Irbil*	*Mawsil*	*Sinjar*	*Hilla*	*Mardin*	*Jazira*	*Hisn*	*Maya*
658	Au[1] Ag[2] Ag½[3]	Ag[4]	Au, Ruler – Mongka			Ae[5] Ruler – Hulagu		Ae[6]	
659	Au[7] Ag[8]	Ag[9] Ag½[10]	Au Ruler – Mongka			Ae[11] Ruler – Hulagu			
660	Au[12] Ag[13]	Ag	Au[14] Ag[15] Ae[16]						
661	Au[17] Ag[18]	Ag½[19] Ae Hare[20]	Au[21] Ag[22]						Ae Hul[23]
662	Ag[24]	Ag	Ae?[25] Ag[26]	Ae Toga-Hul Il-Khan[27]		Ag Date? Ruler – Hulagu[28] Ag½[29]		Ag Date? Ruler – Hul Il-Khan[30] Ae[31]	Ae No Hul Il-Khan[32]
663	Ag[33]	Ag	Ag[34]						
664	Ag[35]	Ag	Au(?)[36] Ag Hul Il-Khan	Ae Robe[38] Ag Mongka Y[39]		Ag Ruler – Hul Il-Khan Y[40]		Ag[41]	
665	Ag Abaqa Il-Khan No Y[42]	Ag		Ae Robe[43] Ag Hul Il-Khan Y[44]	Ag? Date? Hul Il-Khan Y[45]	Ag Ruler – Hul Il-Khan Y[46]	Ag Hul Il-Khan No Y[47] Ae[48]		Ag Ruler – Hul Khan No Y[49]
666	Ag Abaqa Il-Khan No Y[50]		Ag Hul Il-Khan Y[51]						
667	Ag[52]						Ag[53]		
668	Ag						Ag[54]		

Notes

1 Bibliothèque Nationale 28; 8.23 grams.
2 Ashmolean Museum Hoard 155; 2.86 grams. It has the Jazira ibn ʿUmar obverse.
3 Ashmolean Museum Hoard 153; 1.49 grams.
4 Ashmolean Museum Hoard 206; 3.00 grams. The reverse is the same as Baghdad's except for two phrases placed vertically on the left and right of the field.
5 American Numismatic Society 49.163.398; 2.67 grams. The type has no date but was probably issued in 658 H. There is a hexagon on both sides with the ruler, al Malik al-Mu'azaffar Qara Arslan, on the obverse and *Hūlāgū Khān al-Muʿazzam* on the reverse. There is no mint or date.
6 Bora Etker, private collection; no weight. The type has no mint, no date and no local ruler but is attributed to Hisn Kayfa. This location is a possibility partially because the issue was rapidly produced from other coin stock. The obverse was a Tabriz hexagon overstruck on a square with the short shahada. The reverse had a linear circle with *Qāʾān al-Āczam Hūlāgū al-Muʿazzam*. There was no mention of Mongka. The margin is too worn to read, but the issue may have been produced in 657 or 658 H.
7 Bibliothèque Nationale E 2545; no weight. It is comparable to British Museum 1895.10.9.36; 6.73 grams. The date is off the flan.
8 British Museum 1969.5.12.15; 2.56 grams. It has a Jazira ibn ʿUmar obverse.
9 Ashmolean Museum Hoard 213; 2.97 grams: The remainder of all types are closely similar, stating *Mūngkā Qān, Qāʾān al-Āʿzam, Hūlāgū Khān.*
10 Ashmolean Museum Hoard 200; 1.43 grams.
11 Yapi ve Kredi Bankasi 10323; 2.22 grams. It is perhaps from Mardin and probably issued in 659 H. Both sides have a hexagon cartouche. The obverse carries the *shahada* while the reverse has *Khān Hūlāgū al-Mu cazzam.*
12 Bank Sepah, no number; 5.53 grams. The date is unsure.
13 Ashmolean Museum Hoard 180; 2.84 grams.
14 Yapi ve Kredi Bankasi 10251; 4.12 grams.
15 Ashmolean Museum Hoard 251; 2.82 grams. At the top of the obverse was a crescent moon balanced on the top of a pole. The field had the short *kalima* while the margin had the full minting formula. The reverse had *Qāʾān/ al-Āczam/ Mūngkā Qān/ Hūlāgū Khān* with Sura iii:25 starting at 1 o'clock in the margin.
16 Bibliothèque Nationale 1972.1144; no weight.
17 British Museum 1884.7.3.111; 6.02 grams.
18 Dar al-Kutub 3702; 2.77 grams.
19 Ashmolean Museum Hoard 223; 1.58 grams.
20 Bibliothèque Nationale, no number; 6.09 grams.
21 Iraq National Museum 16535; 5.45 grams, with loop.
22 Steve Album, private collection; 2.94 grams.
23 Steve Album, private collection; 5.68 grams. The date is insecure. It has no ruler, no *Mūngkā* and no title for Hulagu except *muʿazzam.* Only the obverse margin makes it different from the Mawsili copper by stating *bi tumān Mayafaarrquin.*
24 Ashmolean Museum Hoard 159; 2.90 grams.
25 British Museum 45.5.23.261; 6.06 grams.
26 Ashmolean Museum Hoard 253; 2.41 grams. The obverse type was a head in profile facing left inside a square.
27 Ashmolean Museum 55; 5.94 grams.
28 American Numismatic Society 49.163.393; 2.67 grams.

continued...

Notes to Table 5.1 continued

29 American Numismatic Society 72.250.21; 1.51 grams. It has the same designs as the single.
30 Yapi ve Kredi Bankasi 10329; 2.02 grams. The type has no date or mint but does state the local governor, ʿAbd al-Lawi.
31 Balog, Ayyubids types 88 and 89.
32 British Museum 1881.7.6.43; 6.74 grams. This attribution is a possibility only since the coin has an insecure mint and date.
33 Yapi ve Kredi Bankasi 10275; 2.70 grams.
34 Dar al-Kutub 3775; 2.88 grams.
35 Ashmolean Museum Hoard 170; 2.91 grams.
36 Muhammad Lutfi, private collection; no weight. The margin is flattened, making the mint difficult to read. At first, it seems to be Hilla without the definite article. However, the date is secure.
37 Ashmolean Museum Hoard 255; 2.78 grams.
38 Iraq National Museum 10716; 5.69 grams.
39 Ashmolean Museum Hoard 278; 2.88 grams.
40 Ashmolean Museum Hoard 269; 2.81 grams.
41 Balog, Ayyubids, type 88, has *Mawgū Qā ʾān al-ʿĀdil. Hūlāgū Il-Khān al-Muʿazzam* with the date and mint on the reverse. He reads the date as 658 H. If that reading is correct, it is the first time *Il-Khān* is used for Hulagu. However, it is more likely that the date is 664 when other mints used the same terms and in a period of active policy towards the local dynasts. Coins from Hisn Kayfa are extremely rare and none were found in the collections used for this study. See also Norman D. Nicol, "The coinage of the Ayyubids: additions and corrections", *The Numismatic Chronicle* 145 (1986), 119–34.
42 Ashmolean Museum Hoard 187; 2.93 grams.
43 Iraq National Museum 917/1; 4.84 grams, with two holes.
44 Bibliothèque Nationale E 246; 2.43 grams.
45 Ashmolean Museum Hoard 275; 2.94 grams. British Museum 1983.11.10.1; 2.41 grams.
46 Yapi ve Kredi Bankasi 10312; 2.70 grams.
47 Bibliothèque Nationale, no number; 2.71 grams.
48 British Museum 1855.8.3.117; 6.09 grams.
49 British Museum 1973.9.11.17; 2.56 grams.
50 Steve Album, private collection; 2.64 grams.
51 Yapi ve Kredi Bankasi 10300; 2.65 grams.
52 Bank Sepah Abaqa B; 2.63 grams.
53 British Museum 1970.3.4.16; 2.75 grams.
54 Çunayt Ölcer, private collection; no weight. Only the *nūn* of *thamān* is visible.

but wanted these newly conquered regions to join the Mongol hierarchical system. From the start, the Mongols had increased the value of their coinage by raising the weight, as exemplified in the Zabulistani *ʿAdl* billon and the Baghdadi conquest silver. This concern for value meant that, in an expanded system, regional coinages maintained a subsidiary relationship to the capital.

Although the theory was re-instated, in Tiflis the weight was remarkably inconvenient, requiring its taxes to be calculated separately once again. It was a strange division, being 15 carats of the 4.30-gram mithqal. The carat number should not be construed as a drop of one carat from its previous division. Rather, the reduction was two carats from 17, on which the Saljuq unit was still based.[170] As a result, Tiflis showed a tendency to re-identify with the Anatolian accounting system. However, the mithqals of the two were not the same at this point. The 4.30-gram mithqal had appeared within the Mongol realm in 645 H as Tiflis had switched from the standard of 4.48 grams. The single coin of 14 carats of the 4.48-gram mithqal had then descended from 2.61 to 14 carats of the 4.30-gram mithqal or 2.51 grams. At that time, it was a convenient transfer of the same unit to different mithqals; however, the current adjustment to 15 carats was an early and revolutionary step away from whole fraction divisions. It followed a different method of cutting up the mithqal, which Tabriz followed thirteen years later in 678 H. Nevertheless, this particular Tiflis arithmetic was experimental; 15 carats is never met elsewhere and lasted in Tiflis this time for only four years. However, the concept gained ground; and Tiflis later dropped two more carats to 13 or 2.33 grams. That weight was also unusual, but it took hold in pockets around the empire and lasted intermittently for almost twenty-five years.

Successes of the final Hexagon coinage period

The third period of the Hexagon coinage, run by Master Trident, closed with the termination of the series in 668 H. As supervisor, he had focused his main attention on refining Gurjistan and the Jazira, which remained outside but aligned more with the Tabriz system. Nevertheless, he had also continued to stabilize the main centre of Tabriz. In particular, the mint no longer accepted other coinages, either previous or contemporary regional ones, for restamping; only one wayward piece has been found to date that shows recycling. Therefore, under him, Tabriz straightened out its tax collection requirements and developed a standardized and smooth-flowing production process.

Review of Arghun as governor

Arghun's government was completely restructured after Hulagu's arrival. The Tabriz system had been founded in 650 H as basically a regional mint but, under Hulagu, grew to be the dominant force in financial matters. Masters Star, Daisy and Trident made Tabriz the Mongol capital of Greater Iran by extending their control. The weight adjustments just described was one example of the concerted

effort. A similar tale of control can be told about the inscription. Mongol precedents of the eastern styles made headway, and the eastern practice of frozen types became common. As strong and as independent as Tiflis had been initially and as emphatic as Baghdad and al-Mawsil had been to exercise the highest ideals of Islamic coinage, Tabriz was intransigent about retaining its Mongol traditions for itself, which slowly prevailed over the various regions and different tax structures. Fortunately, the division of income between the great khan and the ruler of the Russian steppes had terminated. In another sphere, those areas that paid the *tamgha* tax had originally produced the full range of three metals. As the tax on trade, the *tamgha* duty defrayed Hulagu's personal expenses and was deployed in the lands he had conquered. *Kharaj* coinage for tribute payments came from the mints of Fars and Damaghan in 658 H and every year from Rum. Finally, the *qubchur* or poll tax covered the basic imperial costs of the great khan, which Tabriz had the unique responsibility for collecting. During the significant period from 650–68 H, the Tabriz Hexagon was the only coinage in the Mongol realm weighing 16 carats of the 4.24-gram mithqal or 2.83 grams. Some other coinages were higher during the period, notably that of the Rum Saljuqs, which remained at 2.92 grams, while others were lower. Tabriz never extended its weight standard to another Mongol mint.

The officials in Tabriz had to supervise not only imperial *qubchur* and *kharaj* but also Hulagu's *tamgha* taxation. From the vast amounts of coinage still extant, *tamgha* production substantially outranked Tabriz's *qubchur* money; but both were outdone by Rum Saljuq *kharaj* coinage. These facts imply an imbalance of resources; yet the best sign that Tabriz was extending its grip over the regions was that their money filled its coffers as the weight histograms indicate. Tabriz loosely co-ordinated taxation accounts, integrating all the coinages by allowing a wide remedy in the weight structure. Its growing tentacles continued to emerge even shortly after Hulagu's death. The *tamgha* money from al-Mawsil was reduced to below that of Tabriz in accordance with the body politic apparatus. That made Hulagu's household tax subordinate to the imperial one. Only Abaqa's *inja* of Baghdad was almost equal to Tabriz. Therefore in 668 H, only tribute money still remained outside the mixed Greater Iran Mongol system. When Abaqa did relinquish the straight-sided Hexagon type of Sharaf al-Din in 668 H, it was due to new political developments, not new concepts.

The solid stability of the system during the change of rulers at the centre in Mongolia and in the third imperial province, itself, can be best attributed to the fact that Arghun remained in his post of chief minister or financial officer. His continuous presence provided a framework for the important but rather hidden new officials of the mint to develop and implement policy. It is evident that the mint masters were in charge of weight standards for the silver coins, the accuracy or range of deviation of each coin from that standard, purity, the manufacture and safe storage of dies, the appointment of mints and their production policies. The last factor determined which mint made what type, the metal it used and the time it struck. On the other hand, the overall monetary policy and the statements on the

coinage seem to have been determined by a council at the centre since, with the arrival of Hulagu, no one person can be detected, not even Arghun, to have made radical changes. It is evident, however, that the chief wazir was not in charge. His functions seem to have focused on allocating the revenue, not bringing it into the royal coffers. Throughout most of Mongol rule, money was a matter that seemed to be reserved for experts, left to a dedicated core of civil servants, who were given amazing freedom to improve the system, both technically and theoretically. Some innovations failed, but others advanced monetary practice incalculably. At moments of political crisis, the financial system sometimes did show the turmoil but only momentarily. One of the reasons it remained solid is that the force of the *yasaq* hung on, even if often only by threads, so that policy was continued until a general agreement for change was reached at a peaceful stage.

In retrospect over the period covering the reigns of Guyuk, Mongka, Hulagu and Abaqa, Arghun had been instrumental first in providing an active civilian bureaucracy to follow up the various military campaigns of Baiju,[171] especially the one in 641 H in Rum, then of Eljigedai in Khurasan and Rum in 645 and 646 H and finally of Hulagu in 656 through 660 H. Arghun's strength lay in his practical approach, assessing a situation astutely and persevering in a policy. He brilliantly managed to roll with the imperial tide and still support various local initiatives. With regard to finances, he understood and supported the advice of others. First, he approved of Nizam al-Din's customs duties. Then he accepted Sharaf al-Din's measures, after which he reverted to those of Nizam al-Din. Soon, he found it necessary to balance the demands and expectations of Batu and Guyuk as he shifted monetary revenue around from Nakhchavan to Bulghar to Tiflis and then Sivas. When Qara Qorum decided on a new system in 649 H, his main agent, Sadr al-Din, administered it in the capital of the third province while he brokered a deal with Batu. The senior prince of Chingiz Khan's family received large sums from vassal states in Iran, but the income was short-lived, disappearing in most part after his death. With the arrival of Hulagu, new conquests meant a different approach to local dynastic houses. Arghun once more proceeded slowly, first basically keeping the financial structure intact in ʿIraq-i ʿArab and the Jazira. Nevertheless within two to three years, these areas began to fall in line behind Tabriz. Further, he allowed some principalities to strike, indicating increased Mongol control over local affairs. Step-by-hesitant step, Arghun's officials begin to extract steady revenue.

Not only did the system established by the *quriltai* of 649 H endure for twenty years, including ten years after Mongka's death; but Arghun also improved it under Hulagu's auspices. Nevertheless, as the system expanded, the number of monetary officials contracted. The financial diwan became organized hierarchically: a single master was promoted to the top in 658 H, and Tabriz had the highest weight.

There is no doubt that the long sojourn Arghun had with Mongka Khan at the beginning of the reign established a thoroughly grounded and fundamental policy. Mongol financial tenets not only remained intact in spite of political turmoil at the centre but they were also strengthened and improved during this period. The most

outstanding feature of Mongka's reform, Hulagu's governorship and Abaqa's faithful continuation was the successful incorporation of every person whether a subject or a Mongol into the Mongol tax system. That system had spread more and more throughout the realm with the notable exception of Saljuq and Cilician Armenian lands. The vision of a universal system had first appeared under Ogedai but took many twists before assuming reality in this period under Arghun.

Notes

1 *Arghun* is still a personal name. It is the noun form, apparently, of the adjective *arggoo*, meaning "dry", used in reference to a meal like noodles mixed with meat without any liquid broth or oil. *Aqa* is a term of respect, not part of a personal name.
2 Juvaini, 538. *Balish* were large ingots, shaped like pillows, probably with a standard weight, and were usually silver. Juvayni goes to great lengths to disparage Sharaf al-Din, probably because of a family feud, and reports the sums he levied in gold only, perhaps to exaggerate his cruelty.
3 *Ibid.*, 507.
4 *Ibid.*, 508.
5 *Ibid.*, 507–8. The Ayyubids were in need of the Mongols as allies to counteract the active threat of the displaced Khwarazmian groups taking control of Syria. R. S. Humphreys notes the raids and the alliance manoeuvres of the Syrians to control them; *From Saladin to the Mongols: The Ayyubids of Damascus, 1193–1260* (Albany, 1977), 271.
6 Howarth, 49.
7 *Ibid.*, 44.
8 *Ibid.*, 47.
9 *Ibid.*, 52.
10 *Ibid.*, 48–50. Humphreys does not mention this treaty.
11 Pakamov, 296. The inscription could have alluded to both Davids, but numismatists consider that the real power lay with the legitimate David. He was known as David IV or David Ulugh.
12 Pakamov reported this series in full, 293, and noted that there are also types without the date. The Georgian date is K 465. However, he read Tiflīs. Lang, 37, n., explains that "the mint name Dmanisi was first read by Professor Giorgi Tseret'eli of Tiflis University [G. Tseret'eli, 'Dmanisis monetis gamo', *Literaturuli dziebani* II (Tiflis, 1944), 167–72]. It had previously been taken for a misspelling of Tiflis." Lang, however, does not report this type because he was discussing a later issue.
13 The last word, *nyk*, means "one". Great controversy has swirled around this inscription, generally related to this word. Most people have read the word as *bag*, referring to the general in charge of the area. However, at this time, *bag* referred to a local ruler, not a Mongol general. See Pakamov, 282–5, for the basis of the word as a title for Baiju. Neither could the word have referred to Arghun since all sources give his title as *aqa*. In numismatic catalogues, the series is usually identified as "Turkhina" coins, referring to the queen regent for part of the time they were issued. Since catalogues place these coins in Islamic sections, convention requires identification by ruler; but imperial Mongol money at this period did not contain names.
14 van Ruysbroeck, 88. Also *The Mongols*, Men-at-Arms Series, no. 105 (London, 1980), Plate F.
15 E.g. Oleg Grabar and Sheila Blair, *Epic Images and Contemporary History: The Illustrations of the Great Mongol Shahname* (Chicago, 1980), 26, 43; and the woodprint of a moving camp in Teresa Waugh, trans., *The Travels of Marco Polo* (London, 1984), 56.
16 E. D. Phillips, *The Mongols* (London, 1969), 45.
17 Humphreys, 333.
18 Smithsonian Institution 74.51.80; 2.58 grams. Although the place for the mint at the top on the obverse is worn, the date is clear.
19 Münzsammlung (Munich) 84877; 2.66 grams, with hole.
20 Ashmolean Museum 18; 2.76 grams.
21 Lane Poole, Vol. 6, no. 2; 2.62 grams, with hole.
22 American Numismatic Society 22.216.220; 2.70 grams.
23 American Numismatic Society 22.216.221; 2.83 grams. The place for the mint on the obverse is too worn to read, but the saluki indicates the mint.
24 Iran Bastam Museum 246; 1.47 grams.
25 Juvaini, 538.
26 Sharaf al-Din had retained his post as head of finances. The demurs of Arghun are hard to explain unless Juvayni tried to put Arghun in a better light than he deserved. Arghun was still a powerful man at the time Juvayni wrote and the poll tax had been abandoned.
27 *Ibid.*, 508, "he imposed a tax on the Moslems ... each individually ..." Later in the text, 539, "he imposed ... a tax beyond the strength and endurance of each individually, noble and base, leader and led, rich and poor, pious and wicked, old and young ..."
28 *Ibid.*, 539.
29 G. Antiker Kunst Auction Catalogue, December 1987, lot 373; 2.92 grams.
30 Pakamov, 286. There was an unusual division of the *shahada* which split *Āllāh*. The *ālif* was on one line and *llāh* on the following one.
31 Steve Album, private collection; 2.90 grams.
32 Ashmolean Museum Hoard 2; 2.85 grams.
33 Juvaini, 540–1. He "fixed a tax on each of them individually ...", "He appointed tax collectors to each individual quarter", 541.
34 *Ibid.*, 542.
35 No numismatic cabinets have any coins from these cities. A detailed study of one city, al-Rayy, was made by Miles, *Numismatic History of rayy*.
36 According to Juvayni, the city was now deserted and destroyed so as to hamper any further Mongol depredations, 542.
37 Sabsavar is 175 km WSW of Tus and 100 km (60 miles) west of Naysabur.
38 *Ibid.*, 542–3.
39 *Ibid.*, 508.
40 *Ibid.*, 543–4.
41 I.e. Sharaf al-Din.
42 Juvaini, 508.
43 There is a possibility that the issues were tribute money. For Irbil in 643 H, British Museum 1949.8.3.282; 3.01 grams. During this period, Irbil minted only in 643 and 644 H. For Mardin in 643 H, British Museum 1949.8.3.409; 2.59 grams. This was the first coinage from Mardin, itself, which maintained the hexagon design on both sides taken from Dunaysir's earlier minting. Mardin continued to strike this type in 645, 646, 650, 651, 654, 656 and 657 H.
44 Kolbas, "The Sar-i Pol Hoard".
45 Juvaini, 511.
46 Münzsammlung (Munich) 84877; 2.66 grams, with hole.
47 Yapi ve Kredi Bankasi 10250; 2.80 grams.
48 American Numismatic Society 22.999.57; 2.55 grams.
49 Ashmolean Museum 23; 2.75 grams.
50 Münzsammlung (Munich) 84875; 2.75 grams.

51 There are several varieties with crude calligraphy or the mint off the flan.
52 Bibliothèque Nationale, AF: 3.13 grams.
53 Ashmolean Museum 168; 3.78 grams.
54 *Guyuk* is a problematical name, but one that later khans also used. It may be an ancient word derived from *guyung*, meaning "lion cub".
55 Juvaini, 510, for details about Arghun's summer and autumn sojourn there in 646 H, and *ibid.*, 508, for the person directing the rebuilding of the city and administrative proceedings.
56 Juvaini, 511.
57 "The ruins of Bulghar are situated near the village of Bolgarskoye, literally 'town of the Bulghars,' in the Spassk district, 115 km. south and at 7 km. from the left bank of the Volga;" Juvaini, 42, n. 12.
58 Steve Album, private collection; 2.89 grams. The mint is spelled *Būlqar* with two points above the *qāf* and no *ālif*. Both specimens found are too worn at the bottom to detect whether or not there is a hare.
59 Juvaini, 51–13.
60 *Ibid.*, 512.
61 *Ibid.* The tax collectors presumably operated according to Sharaf al-Din's model.
62 Peter Jackson, "The Dissolution of the Mongol Empire", *Central Asiatic Journal* 22 (1978), 186–244; 200.
63 Juvaini, 513.
64 Pakamov, 298.
65 American Numismatic Society 77.158.1348; 2.79 grams.
66 British Museum 70.7.9.270; 2.75 grams. See also Hasso Pfeiler, "Die Münzprägung Kilitsch Arslan IV, im Jahre 1248/49 in Sivas", *Schweizer Münblätter* (*Gazette Numismatique Suisse*) 28 (February, 1973), 64–72.
67 To belie his dignified regal pose, the king had only three arrows, a sign of the hunt. A parallel exists with archers today in the United States: a deer hunter generally takes only five arrows with him. In contrast to the limited number of arrows for the Mongol hunt, the full quiver of arrows was used for war.
68 The crown, unidentified to date, is pictured on coins from 593 H on the Artuqid ruler of Hisn Kayfa. The crown was modeled after that of the Sassanian ruler, Shapur II of the fourth century AD, but had a wider and fuller brim of fur. On other pieces of metalwork, the same Turkish crown appears; e.g., in a medallion from the "Blacas Ewer", signed in al-Mawsil in 629 H [British Museum, 66.1269.61, published in Eva Baer, *Metalwork in Medieval Islamic Art* (Albany, 1983), 145] and from a northern Mesopotamian candlestick from the same period [British Museum, 1969.9-22.1; Baer, 147].
69 The image was overstruck on a former Saljuq type with a visible underprint on American Numismatic Society 00.999.1.279; 2.59 grams. Also, Pakamov reports that most of the coins he looked at were overstrikes of Saljuq ones, 304. Since the eleven coins in this survey were at a lower standard than the Saljuq one, the minting authorities of David IV presumably clipped the original flans.
70 American Numismatic Society 00.999.11279; 2.59 grams. No date appears on any specimen of this type.
71 Ruysbroeck, 249, for Mongka Khan's opinion of Orghul-Ghaymush; and n. 7 for the official version in the *Yuan Shih*, Chapter 3.
72 Barthold, 478–9.
73 *Mongka* means "eternal".
74 This was the range of assessment in 643 H for Syria. The rate, therefore, seems to have been a common one.
75 Juvaini, 517.

76 The comparison presumes both coinages were about ninety-five per cent pure, the normal standard at the time; but these coinages have not been tested.
77 The immediate forthcoming coinage was not for *qubchur* but *kharaj*.
78 British Museum 1967.1.12.541; 2.86 grams. The coin is from Qunya.
79 The index to ibn al-Athir's *al-Kāmil* is an excellent source for *nisbas* of the period.
80 American Numismatic Society 77.158.1348; 2.79 grams, for 650 H. Lang notes this series almost in passing, 38–9, without giving the inscription. His dates do not completely agree with this study, nor do some of his interpretations. The competition between the two Davids at this point, which he discusses, lends political interest but should not complicate the financial picture.
81 A. David H. Bivar, "Manūchirī's Māzandarān Ode: an English Version", *Journal of the Royal Asiatic Society*, second series, 1990, 54–63; p. 62, l. 4. I wish to extend my appreciation to Prof. Bivar for his help in deciphering this inscription and referral to this poem.
82 Juvaini, 519.
83 Minjaj Suraj Juzjanī, *Tabaḳat-i Nāṣirī*, trans. H. G. Raverty ([Calcutta], 1881; reprint, New Delhi, 1970; and Lahore, 1977), 1172 (Section XXIII: 6).
84 British Museum, Lane-Poole, Vol. 6, vi; #350; 1.12 grams. Also American Numismatic Society 1985.97.4; 1.14 grams.
85 One coin was at the Tiflis weight; Lane-Poole Additions, 11; 2.59 grams.
86 Lane-Poole, Vol. 6; 3.89 grams.
87 Jackson, 220.
88 Grigor, 57.
89 American Numismatic Society 00.999.11280; 2.72 grams.
90 Lang, 39, 42.
91 M. Fraehn, *Moneti Khanov Ulusa Djuchieva ili Zolotoi Ordi* [Coins of the State of the Jochid Khans or the Golden Horde] (St Petersburg, 1832), 1, Type 1; no weight. The issue followed the style set by Arghun and Batu in 650 H. The reverse stated *Mungū Qā'ān al-Ā'ẓam* with his two-pronged horizontal trident in the centre. The other side had *ḍarb-i Būlghār*.
92 Jackson, 212, refers to printed and manuscript texts of Juzjani who stated broadly, in Jackson's words, "at a later date, during the reign of Mongka, the khan of the Golden Horde claimed the right to a sizeable proportion of the spoils from this region".
93 American Numismatic Society 1922.216.225; 2.61 grams.
94 After this, the month of Sha'ban only was given, not the day.
95 Note that the months for 653 H are not equivalent to those listed by Lang, 40, even though the same numismatic collection was consulted for this study. The other years identified in this study agree with Lang, but this study has added different collections to his list.
96 American Numismatic Society 1937.1.11; 2.77 grams.
97 Lang, 39.
98 Juvaini, 521.
99 Steve Album, private collection; 3.33 grams.
100 Ashmolean Museum 25; 2.83 grams.
101 American Numismatic Society 17.215.11732; 3.05 grams.
102 Yapi ve Kredi Bankasi 10282; 4.05 grams. Since only one coin is known, it is difficult to estimate a weight standard. The coin is within a wide range of the 4.125-gram mithqal. However, if this was the intended weight, even for purses if not for individual coins, it runs counter to normal practice in the region. Subsidiary mints, even those issuing copper, should have had a lower weight than that of the chief one. If the coins are analysed, the amount of silver in them might provide an answer.
103 The dynasty was probably not that of the Isphabads. Consult J. M. Smith for the Sarbadar period. Also Mas'udi, *Prarie d'Or*, for the history of Mazandaran and Ruyan.

104 Steve Album, private collection; 3.08 grams.
105 Steve Album, private collection; 3.46 grams.
106 American Numismatic Society 1918.125.7; no weight. It has the Samarqand obverse style with an elegant quatrefoil border on the reverse. The date is worn. See Chapter Two, "Financial theory and structure: accounting procedures and weight standards", *infra*, for the previous obverse type.
107 The expression of this belief is found in a prayer directed "to Qan Ataga Tingi, highest of all, spreading his dear great voice and spreading his mercies over the whole Mongol people, pacifier of the times, removing snow and starvation with his great body of lightning, with a body of lightning, an origin of clouds, and ten thousand hooves, and to mother earth"; Charles R. Bawden, "A Prayer to Qan Ataga Tingri", *Central Asiatic Journal* 21 (1977), 199–207: 200–1.
108 Some sources suggest Talaqan, but the difficult siege suggests that the area was not reliably safe for foreign diplomats.
109 Farhad Daftary, *The Ismaʿilis: Their History and Doctrines* (New York, 1990), 42–7.
110 Gold, Sotheby Auction Catalogue, June 1987, lot 859; 1.70 grams, clipped. Silver, Steve Album, private collection; 3.46 grams. It is exactly double the gold coin.
111 Christopher Dawson, ed., "Letters of John Di Monte Corvino", *The Mongol Mission* (London, 1935), 184. Also *Ruysbroek*, 222. There were 400 Assassins dressed in the costumes of various peoples.
112 Juvaini, 521.
113 Le Strange, 184.
114 Today this method is still retained for squares as in the square root of a number. The ones relating to triangles and pentagons have been abandoned, however. There are many medieval Arabic manuscripts on this system, the favourite for architects being the "golden pentagon" ratio.
115 American Numismatic Society 74.240.2 Hoard; 2.76 grams.
116 This assumption is derived from the fact that few specimens are available. Although the number of coins that remain today is not normally a reliable indicator of the amount of production, the Hexagon coinage in general is so plentiful that it seems unlikely that just one or two years would be rare unless few were made in the first place.
117 Such an analysis for some aspects is found in Thomas T. Allsen, "Mongol Census Taking in Rus', 1245–1275", *Harvard Ukrainian Studies* 6 (1981), 32–53. Also see Donald Ostrowski, *Muscovy and the Mongols: Cross-cultural Influences on the Steppe Frontier, 1304–1589* (Cambridge, 1998), 119–21.
118 Münzsammlung (Munich) 85020; 2.89 grams.
119 Boyle, "Il-Khans", 346.
120 American Numismatic Society 62.127.50; 2.89 grams.
121 The Mongolian word *Hulagu* means a well-proportioned, intelligent, proud and faithful horse, an extremely prized companion.
122 Sura iii: 25 reads "Say, 'O God, Master of the Kingdom, Thou givest the Kingdom to whom Thou wilt and siezest the Kingdom from whom Thou wilt ....'" The obverse inscription had the *shahada* of *Lā ilāh illā Āllāh, Muḥammad rasūl Āllāh, ṣallā Āllāhu ʿalayhi wa sallim*. The reverse had *Qāʾān al-Aʿẓam, Mūngkā Qāʾān, Hūlāgū Khān* divided differently in the gold and silver types.
123 Gold: Dar al-Kutub (Cairo) 4451; 7.54 grams. Silver single unit: Ashmolean Museum Hoard 151; 3.03 grams. Silver half unit: Ashmolean Museum Hoard 150; 1.55 grams. Silver third unit: Ashmolean Museum Hoard 148; 1.02 grams. The last type had a triangular border to indicate the weight.
124 George Lane, *Early Mongol Rule in Thirteenth Century Iran: A Persian Renaissance* (London, 2003), 31–5.

125 A similar situation had occurred previously. For example, Nizam al-Din had used an Ahari engraver in establishing the mint at Chormaghun's camp or Bazar in 639 H. Later, the situation was reversed as the Baghdadi diwan employed the Mardin mint master as engraver in late 676 H.
126 Steve Album, private collection; 2.97 grams.
127 British Museum OR 2579; 2.86 grams. The obverse had the short *shahada* with the mint and date in the margin. There were several reverse types, but all had glorious phrases about the great Mongka Khan and his brother, Hulagu without *khān*, as rulers of the world. Consult Humphreys, 353–4, for details of the peaceful capitulation of these and other Syrian towns. The Syrian campaign is better documented than that of ʿIraq, but the forethought that went into a civilian government may well have mirrored that for Baghdad. Caution is warranted about an overwhelming role for the military. For example, in n. 75, Humphreys comments on the disparity between Rashid al-Din's account and that of a local chronicler on the siege of Mayafarraqin and the Battle of ʿAyn Jalut. Rashid al-Din's extensive remarks "have more the character of epic than of sober history".
128 J. C. Hinrichs, private collection; 2.68 grams.
129 David Priestley, private collection; no weight. All have the same general statement with the names and titles of Mongka and Hulagu.
130 Islamic Museum (Cairo) 18490; 6.05 grams, for 657 H. In the obverse field below the name of Lu'lu' was the long *shahada* while the circular margin held the sura. At the left and right edges of the field were the first and last parts of his name. The reverse begun with *Mungū/Qāʿān al-Aʿẓam* with the full minting formula in the margin starting at 1:00. There was no mention of Hulagu. In 658 H, Lu'lu' also issued copper with similar legends. For a detailed analysis of the coinage and legitimacy problems of the transition period in Baghdad and the Jazira from 655 to 661 H, consult Stefan Heidemann, *Das Aleppiner Kalifat (A.D. 1261): Vom Untergang des Kalifates in Bagdad über Aleppo zu den Restaurationen in Kairo* (Islamic History and Civilization. Studies and Texts 6) (Leiden, 1994).
131 Bibliothèque Nationale I 1395; no weight. Both sides have a circular cartouche, the obverse a linear one and the reverse a dotted one. The obverse carries the *shahada* while the reverse has *Hūlāgū/.../al-Muʿaẓẓam* with the sura in the circular margin. It is an overstrike of the Mawsili type of a head in a square. Around the square is the date of 657 H. The other side of this overstirke cites Qara Arslan, and the *shahada* is in the circular margin. This coin is a copper from al-Mawsil that Mardin had to re-use to meet Mongol expectations. Whether or not it was overstruck in the same year it was originally produced is not clear; but, certainly by 658 H, the dynasty accepted complete Mongol suzerainty with appropriate coinage.
132 The title *Il-Khān* has been read incorrectly on the British Museum piece, by Nitazn and Reuven Amitai-Preiss, "Two Notes on the Protocol on Hulagu's Coinage", *Israel Numismatic Journal* 10 (1988–9), 117–28. A further discussion of the use of the title for Hulagu at this point is presented in Reuven Amitai-Preiss, "Evidence for the Early Use of the Title Ilkhān among the Mongols", *Journal of the Royal Asiatic Society*. However, the contemporary historian was writing at a later period when the title was used posthumously, as on the coinage as discussed in the next chapter.
133 Judith Kolbas, "Figure 5. Hexagon Coinage: 650–661 H", "Mongol Money, The Role of Tabriz from Chingiz Khaan to Uljaytu: 616 to 709 H/1220 to 1309 AD", PhD diss. New York University (New York, 1992).
134 Yapi ve Kredi Bankasi 10350; 2.23 grams, with hole.
135 Amitai-Preiss suggests the chief factor was a threat to Hulagu's territory by the Jochids rather than his brother's death or other considerations. Hulagu's resumption of payment to them once Berke was firmly in control and later after the Georgian revolt, however, suggests reasonable co-operation at this point; Reuven Amitai-Preiss,

Mongols and Mamluks: The Mamluk – Ilkhanid War, 1260–1281 (Cambridge, 1995), 29.

136 Late in 655 H, Irbil had resisted a Mongol siege. Time was running out, however, for the Mongols; so Badr al-Din Lu'lu' of al-Mawsil interceded and was successful by early 656 H in obtaining its capitulation. Baiju needed to come through the territory for the conquest of Baghdad; Boyle, "Il-Khans", 349. Evidence from the coinage suggests that part of the reason for the success of Lu'lu' was a negotiated settlement that left Irbil with some local powers that pertained to future taxation. In particular, no tax was levied for almost three years.

137 M.G.S. Hodgson, "The Isma'ili State", *The Cambridge History of Iran*, Vol. 5, *The Saljuq and Mongol Periods* (Cambridge, 1968), 422–82, for background. Also Boyle, "Il-Khans", 360. The citadel of Girdkuh near Damaghan finally surrendered in 669 H after eighteen years of siege.

138 Iran Bastam Museum. 111; 3.09 grams. The range is wide, and the average weight is 3.21 grams, perhaps 18 carats of the 4.30-gram mithqal. The coins are dated. They have been reported only by J. M. Smith from that museum.

139 Actually his brother.

140 Boyle, "Il-Khans", 353–4. This action took place on the narrow plain along the northwestern shore of the Caspian Sea. The Terek River, however, which feeds into the sea at the north end, runs through wide, flat steppe. Today, this territory is the heartland of Chechnya.

141 Encyclopaedia of Islam, "Tabriz".

142 Boyle, "Il-Khans", 356.

143 The reputed mint, in a building datable to this period or a little later according to the Georgian Tourist Office, is on the north side of the river on a height beside the deep gorge. Viewed by the author.

144 Münzsammlung (Munich) 85031; 2.74 grams.

145 In 661 H, the months were Jumada II and Sha'ban. In 662 H, they were Rabi' I and Rabi' II. In 663 H, they were Rajab and Dhu al Qa'da. In 664 H, only one coin is known, and it has no month. However, in 665 H, the shortfall was made up with three collections, namely in Rajab, Shawwal and Dhu al-Qa'da. In 666 H, this number was increased again by one to four, namely in Rabi' II, Sha'ban, Shawwal and Dhu al-Hijja. In 667 H, they stayed at four, going from Rabi' II, Jumada I and Sha'ban to Dhi al-Qa'da. In 668 H, the year the governor betrayed the khan, there were seven collections, beginning in Muharram, Rabi' I, Rajab, Sha'ban, Ramadan, Shawwal and Dhu al-Hijja. In 669 H, the standard four collections were reinstated, which were taken in Rabi' I, Rajab, Sha'ban and Ramadan. In 670, the four were in Safar, Jumada (I or II is not specified), Ramadan and Dhu al-Qa'da.

In 671 H, the system changed, alternating between three and four payments. To start, they were in Muharram, Sha'ban and Dhu al-Qa'da. Again in 672 H, there were four, which occurred in Safar, Sha'ban, Shawwal and Dhu al-Qa'da. In 673 H, there were only three, namely in Safar, Shawwal and Dhu al-Hijja. In 674 H, there were four again, namely in Rabi' I, Rabi' II, Rajab and Ramadan. In 675, there were three, going from Muharram and Safar to Shawwal. Starting in late 676 H, the system was under stress. Only two collections took place that year, in Muharram and Rajab. Then in 677 H, there was only one in Safar. In 678 H, a collection occurred only in Muharram. In 679 H, there was none; and in 680 H, there were two in Rabi' I and Sha'ban. Consult Lang, Type 18A, 43–4, for examples in the collection of the American Numismatic Society. Further discussion for the end of the system is found in Chapter Six, *infra*.

146 Lang, 38–9, for a taste of the intricacy of Georgian politics at this point.

147 The Negudaris became a constant menace, raiding from the Ghazna region into Khurasan, Fars and Kirman. For example, they made serious incursions in the winter of 677 H; Boyle, "Il-Khans", 362.

148 Steve Album, private collection; 2.89 grams.

149 Steve Album, private collection; 2.75 grams. The reverse has a flat-bottomed hexagon.

150 Steve Album, private collection; 2.41 grams. The reverse has a V-bottomed hexagon.

151 Smithsonian Institution 75.46.0411; 2.59 grams.

152 Steve Album, private collection; 2.00 grams.

153 The reduction of two carats is another example of the new concept of weight discussed more thoroughly in Chapter Six and at the end of Chapter Ten.

154 Sotheby Auction Catalogue, April 1982, Lot 130; no weight. The reverse had the long *shahada* in the field. His personal name, Isma'il, was placed at the top of the field and his genealogy, *ibn Lu'lu'*, vertically at the right. His titles of *al-Malik al-Fatih Rukn al-Dunya wa'l-Din* circled around the outside. The margin contained the normal sura. The obverse also had the *kalima* in the field and acknowledged the new caliph, al-Mustansir, with the full minting formula starting at 1 o'clock in the margin.

155 Encyclopaedia of Islam, "Tabriz".

156 Kolbas, "Mongol Money", Graphs 4, 5 and 6; distribution graphs for Tabriz.

157 Boyle, "Il-Khans", 354. She moved to Tabriz.

158 Steve Album, private collection; 4.94 grams.

159 See Chapter Ten, *infra*, for the discussion of other Chinese characters on the reverse of Ghazan's reform type.

160 Steve Album, private collection; 3.55 grams.

161 American Numismatic Society 59.130.305; 2.64 grams.

162 American Numismatic Society 00.999.10001; 2.76 grams, with hole.

163 Juvaini, 1228.

164 Steve Album, private collection; 2.29 grams.

165 *Abaqa*, pronounced *Awag* in modern Mongolian, means "the senior relative on the paternal side". It is not currently used as a name.

166 Ruysbroeck, 94.

167 The crescent seems to be a form of the ancient Sassanian symbol of kingship. It also appeared at the time, as noted in the next chapter, on al-Mawsil's copper, on which a seated ruler supported a large half moon in his arms, and Irbil's copper, on which a running hare leapt over a crescent.

168 The possible use of *Il-Khān* during Hulagu's lifetime has been explored further by Reuven Amitai–Priess in "Evidence for the Early Use of the Title *Il-Khān*", *Journal of the Royal Asiatic Society* 1 (Third Series) (1991), 353–61. He claims again that the title appears on a coin of the British Museum, which however on actual inspection is not fully legible for the date, but also suggests that two authors provide corroborating information. Both of the new sources were written after Hulagu's death so that Priess' initial comment that "evidence for the employment of the term *il-khān* may be anachronistic", 355, follows the points in text above. His research on the title indicates, nevertheless, that contemporaries well understood the distinction between the two regions during the Mongol rule of Greater Iran and that they recognized Hulagu's immense contribution to its subsequent cohesion.

169 Abaqa's title was duplicated in official correspondence; Reuven Amitai-Preiss, "An Exchange of Letters in Arabic Between Abagha Īl-Khān and Sulṭan Baybars (A.H. 667/AD 1268–9)", *Central Asiatic Journal* 38 (1994), 11–33.

170 Saljuq money stayed on the 4.125-gram mithqal, the same one on which Tiflis' 2.75-gram unit had been based.

171 Howarth, 23–61.

Part II

THE KHANS

6

ABAQA

Toluid claims and regional reforms: 667–80 H

Imperial disintegration in the province of Samarqand

In spite of Hulagu's support, Khubilai[1] was unable to keep the empire together. As it fragmented, the central province of Samarqand came under increasing pressure from the Chaghadaid and Ogedaid houses. The tension ultimately involved the third province, creating major constitutional crises for Abaqa.

Khubilai had appointed Baraq to rule the Chaghadaid territory jointly with his cousin, Mubarak Shah; but they both had political ambitions that did not allow two suzerains. Instead, Baraq quietly began to undermine his cousin so that within a few years, by the beginning of 663 H, he was able to mount the throne at Uzgand on his own, supplanting the Qara Khanid governor. He also claimed the treasure of the former ruling Chaghadaid family.[2] Part of its wealth consisted of the revenue from the imperial areas, particularly the towns and their environs. That urban revenue had consisted of coin, which the towns had minted from 660–3 H.[3] However, rather than concede to this usurpation of funds, in 664 H, the imperial mints in the central province stopped producing. Since Baraq's coup and the ensuing complications occurred before Khubilai was officially enthroned, these events warned him:

> that he would have to take definite measures to retain his sway over Turkestan. In fact, the Great Khan decided to put Mongke's plan into operation once again, by sending an army which would penetrate up the Oxus, remove all disobedient Chagatay princes and ensure uninterrupted communications between Qubilay and Hulagu.[4]

However, since Khubilai still faced insurgent generals in China, he could manage to neither put a full army in the field nor support the few imperial agents he did send. Further, Baraq's successful military opposition to the khan's token forces removed any hold Khubilai had over Turkistan.[5] Finally, the khan's ally, Hulagu, died later in the same year.

The desperate situation began to change when an Ogedaid prince, Qaydu, took over the northern area and, with help from the Jochids, severely defeated Baraq.

probably in late 666 H. Qaydu's success restricted Baraq to a small stretch of territory south of the Syr Darya. As a result, Baraq lost his wealth and laid a heavy levy of poll and trade tax on Bukhara and Samarqand.[6] Bukhara was forced to open its mints again in 666 and 667 H,[7] apparently to meet his tax demands.

The turmoil in the second province spilled over into the third so that finally the entire central steppe was affected by the power struggles. It was during this political realignment that a kinsman of Baraq started a chain reaction that ended in the complete disintegration of the royal family. He decided to join Baraq; but, unfortunately, he was Abaqa's governor of Gurjistan, a key position in the delicate balance between Toluid and Jochid power. Since the defection seriously threatened Toluid control of Gurjistan, in 667 H, Abaqa pursued the kinsman and captured him. It was probably soon thereafter that the two protagonists, Baraq and Qaydu, met for a peace conference in the spring near the end of 667 H.[8] In the agreement which emerged in 668 H/1269 AD, Qaydu retained the north and Baraq kept two-thirds of Ma wara al-nahr.

The agreement also acknowledged the claims of both princes regarding the cities. To provide fair rule, however, the khans were neither to live in the cities nor receive any but lawful revenue; that is, the poll and trade taxes.[9] The cities were again entrusted to the management of Masʿud Bag, who had been in charge since 637 H. Although one of the purposes of the revenue seems to have been to finance the deposition of Khubilai,[10] most of it assuredly enriched the two khans and funded Masʿud's administration.

Probably at the same regional *quriltai* of 667 H, a truce was drawn between Abaqa and the two contenders because, soon thereafter, Baraq and Qaydu sent Masʿud to Abaqa to collect the revenue that was due to them.[11] At the same time, Masʿud closed Baraq's mint in Bukhara, but still had to find finances for both houses and his own provincial government.

The tax structure in the empire was complicated, indeed, because there were many different administrative levels.[12] Tax due in money was but one category although it seemed to affect the whole realm the most. Nevertheless, even that tax was sometimes subdivided into portions allotted to the household expenses of various *uluses*. A major indication of this division was the system used in the territories that Hulagu had conquered. Prior to that arrangement, however, there had been other dispensations, which, at this critical point, local rulers were testing and modifying. The basis of the old system was the *tamma*,[13] by which sections of the various *uluses* existed in each region of the Mongol Empire.[14] As a result, the heads of each group, no matter what area they resided in, claimed income from their subjects wherever they lived, doing so even into the next century. The 650 H arrangement between the Jochid *ulus* and the territory of Arghun Aqa was possible because of this policy. For the same reason, not only did the Ogedaid and Chaghadaid groups in Toluid territory apparently owe revenue to the chief contenders but it was also probably due in coin, following previous practice. Unfortunately, the province of Samarqand did not mint for a number of years after 667 H, making it rely on old coin or that of Tabriz. As a result, the peace *quriltai*

seems to have re-established some political re-unification, which also included Mongka's imperial financial system for the middle steppe. However, the treaty created by a consensus of equals was short-lived. Without an acknowledged leader, the equals did not trust each other.

The Ogedaid–Chaghadaid request for money was legitimate, and the Toluids had probably not been sending the revenue owed them. A civil war had made it somewhat difficult for Abaqa to determine the proper khan, and Arghun Aqa was seemingly loath to pay what was extortion in his view. His position may well have been that the Ogedaids and Chaghdaids had removed themselves from *yasaq* benefits by disobeying the supreme khan. Moreover, since they did not show allegiance to him, their leaders had not been sending payments to the imperial treasury either. Arghun Aqa would, therefore, have had little reason to stand by customary obligations that had existed during the height of the empire. Indeed, for almost ten years before the 667 H treaty, the integrity of the empire had been sapped.

Masʿud's mission was to try to re-establish that link with the *yasaq*. Unfortunately, the momentous task failed probably because the Ogedaid–Chaghadaid alliance was still not supporting the Toluid great khan. Further, Arghun Aqa perhaps reasoned that if Baraq and Qaydu expected payment according to the law, they also had to allow Abaqa's payments to pass unaffected through their territory. The latter conditions of the *yasaq* were evidently unacceptable to the allies; but, to uphold the first part, a day after Masʿud had departed from Abaqa's camp, a Chaghadaid force appeared on the banks of the Amu Darya.[15] Either then or somewhat later in the spring of late 668 H, Baraq led a joint Ogedaid–Chaghadaid army across the river,[16] thereby breaking the recent treaty with Abaqa. Expansively laying claim to land from Bagdhis to the Indus River, Baraq soon made his residence in Talaqan. From there, he proceeded to conquer the greater part of Khurasan, pillaging Naysabur, the Mongol centre, but sparing Harat, a vassal city. One of Masʿud's brothers, Husayn, was placed as the *basqaq* to the ruler of Harat.[17] Arghun Aqa was at the front lines, leading the defence; but he was not able to resist Baraq. Quickly responding to the crisis, Abaqa arrived with the main army.[18] He offered peace terms to Baraq by ceding the territory from Bagdhis to the Indus, but Baraq now wanted in addition the territory he had just conquered. There was nothing for it but more confrontation, or imperial Khurasan would be lost to the princely regional houses of Chaghadai and Ogedai. At the Battle of Harat on 28 Dhu al-Qaʿda 668 H/22 July 1270 AD, Abaqa's forces won the day.[19] Baraq's death in just over a year removed the possibility of *revanche*, and the east of Iran was secured for Abaqa and his successors.

The war affected only Iran. The treaty had stayed in force north of the Amu Darya although later there was some disturbance in the financial arrangements. In particular, Qaydu charged Baraq with not paying his dues and of even molesting tax collectors. Barthold believed that the tribute was due from Baraq, himself, to Qaydu as a sign of submission whereas it seems more likely that Baraq refused to let the revenue from Samarqand and Bukhara pass through his territory to Qaydu's *urdu*.[20]

The content of these payments is open to question since no minting occurred at this time in 668 H in the central lands. Moreover, the remnants of the second province had a significant problem, namely, the increasing intrusion of personal or family claims inside imperial land. The treaty conflated the rules of empire with local authority, an awkward arrangement that left it unclear which khan was responsible for coinage, particularly since neither could enter the towns to verify mint activities. Because of suspicion between the *uluses* and limited central control given to Mas'ud, finances and civil administration must have been weak or close to chaos. Fortunately, with the death of Baraq in 670 H, much of the hostility subsided. A compromise was reached, apparently; and minting resumed in 671 H.[21] This issue coincided with the fundamental policy shifts concurrently taking place in Tabriz. Henceforth, the cities of the second province had a regular minting policy even as they often struck out-dated central legends.

Integration of Greater Iran

In Greater Iran, because of Mas'ud Bag's directive to honour the imperial *yasaq* and the military threat of the Chaghadaids, Arghun Aqa had started to restructure the imperial taxation system immediately in 668 H: from this point, the monetary evidence suggests that the third imperial province retained its revenue completely for itself. The province could neither safely send payments to Khubilai, nor did it wish to honour the traditional tax requirements due to all the *uluses*. Consequently, as Hulagu had begun to remove the influence of the Jochid *ulus*, so too Abaqa removed portions of the Chaghadaid one; and the province became Toluid land. In financial terms, the year 668 H was the last of Tabriz's Hexagon coinage founded by Mongka for the imperial *qubchur* tax.

For three years after this turning point, Baghdad directed finances and then returned them to Tabriz in 671 H. Following that period, in two stages from 671 H to Abaqa's death in 680 H, the diwan implemented a programme that redirected monetary policy to serve the needs solely of Abaqa's region. With that policy, Arghun Aqa strove to increase revenue by relying on a different tax, the *tamgha*, which was levied on all people who traded or made products for sale. As before, the income went into the household treasury of the khan, not the state coffers.[22] However, since the Greater Mongol state no longer existed, the household was in effect the new regime. The switch of resources released Abaqa's government from both a restricted revenue base and limited expenditure outlets: in particular, taxes could now support a wider state apparatus. Ultimately, this freedom created a civil administration that reigned over the original military foundation of the state. Adjusting to new management techniques sometimes strained the leadership, but the necessity to do so was belatedly recognized about 698 H as Ghazan Khan finally paid salaries to his army. Therefore, 668 H saw the death of the old order; its passing was a necessity for the viability of a non-expanding empire. Paradoxically, it is also the date of the demise of the original Mongol Empire. Nevertheless, the vast regional houses still shared many common interests, creating a cultural

hegemony; and all of them lasted politically at least into the middle of the next century. This change in taxation was an acknowledgement by the last holdout of the royal family that the empire was no longer united. It was also the turning point in Mongol financial history, contributing significantly to the development of international monetary concepts and practices.

The Battle of Harat had its first financial repercussions in the farthest western portion of the third province because that region now lacked the guiding hand of its senior statesman. The threat of Chaghadaid incursions seems to have kept Arghun Aqa in Khurasan until Baraq died. Perhaps Arghun Aqa made his base at Tus since, earlier in 646 H, he had patronized and personally supervised its reconstruction.[23] At both times, re-asserting and securing central government control over regional maliks had given him an undisputed position in the area. Moreover, his long sojourn now in Khurasan probably had other personal rewards. He was in his fifties at least; and, about this time, he became the father of Nawruz. Within twenty years, the son took over part of his position, becoming a very active military governor of Khurasan.

Initial period of 668–73 H, Hulaguid territories

Since Arghun Aqa was in northern Khurasan, the Tabriz mint was closed. Instead, the Hulaguid territories were the only sources of income. Baghdad took charge and quickly broke the region into three areas. The sub-groups were headed by Baghdad, al-Mawsil and Mardin. Table 6.1 outlines the rapid development of the coinage system over this turbulent period.

Baghdad, 668–70 H

The full responsibility for the whole region apparently lay with Baghdad, which had a different approach from that of Tabriz. In particular, Baghdad abandoned the monometallic policy and embraced the trade tax. This practice initially emphasized a full range of currency in gold, silver and copper. In Baghdad's own section of the southern region or 'Iraq-i 'Arab, the city had been striking the unique *Ābāqā Il-Khān* die on silver yearly since 665 H; but in 668 H, it underwent a revision. First, it became trimetallic, striking gold and copper into the beginning of 669 H to supplement all the previous silver. Then in 670 H, it issued only silver. During this period, it apparently introduced or re-enforced an innovation that arched the tax season over two lunar years.[24] Such a policy was probably co-ordinated with other tax reforms, one of which was the cancellation of the Islamic inheritance tax. Juvayni recounts that he abolished this tax in Baghdad and that he went even further in Kuhistan/Luristan by removing all imposts. From the tone of his brief summary, he seems to have levied only Mongol ones.[25] Then suddenly in 670 H, the mint closed; and for the rest of Abaqa's reign, Baghdad was in crisis. At first, it had to step back from its leadership role as Tabriz prepared to re-assert itself. Nevertheless, there was more to the problem; for the next ten years, 'Iraq-i 'Arab

was on its own and silent except for a brief moment in 677 H. It stood outside the developments that fundamentally transformed the rest of the empire.

Until the closure of the three-year 668–70 H period, tax revenue was pouring into Baghdad. Without a state-wide financial structure, money seemed abundant for its officials to dispose. A hint of rapid revenue and spending increases comes from a remarkable building programme that occurred in Sivas. Three elaborate madrasas, namely the Gog, Burajirdi and Chifte Minerali, emerged so suddenly in 670 H and were so magnificent that the patrons seemed to be in competition with each other. Just as quickly, the building activity ceased the same year. One of them, the Chifte Minerali Madrasa, was financed by Shams al-Din Juvayni, the chief wazir.[26] His brother, ʿAtaʾ Malik, as the governor of Baghdad, was in charge of all revenue for the realm for the period that ended in 670 H. Undoubtedly, his region provided the funds that allowed the wazir to be such a lavish patron. Moreover, the juxtaposition of these events gives some credence to the later accusation of embezzlement against both the governor and wazir.[27] Certainly, the normal tax registers were not appropriate during this critical period of transition; so they had little defence.

al-Mawsil, 668–71 H

Although higher administration was located in Baghdad from 668 H, the two strongest[28] mints in the region during the middle part of Abaqa's reign were al-Mawsil and Mardin. The two also exhibited a hierarchy that maintained al-Mawsil's authority over Mardin. For its own part, al-Mawsil continued to work directly with al-Hilla and, in the next period, once again added Sinjar.

At first, al-Mawsil continued to run a monometallic silver policy but incorporated Baghdad's new timetable of collecting taxes. It kept the *Hūlāġu Il-Khān* type and struck over the cusp of the year from the second half of 668 through the first part of 669 H. After that, the official went to al-Hilla, which again used the al-Mawsil style on its silver over the cusp of 669 into early 670 H. From there, the agent returned to al-Mawsil. However, since Baghdad stopped minting at this point, he assumed authority to institute a change of policy for the tax year of 670–1 H. First, he reduced the weight of the silver coin from 2.75 to 2.61 grams. Second, he copied Baghdad and abandoned the monometallic system of Master Daisy. First, he may have issued gold before he conceived a unique approach to production. Instead of issuing all the different metals at al-Mawsil, he began to balance metallic output by distributing it throughout the region. He dropped al-Hilla from his roster to work with Irbil, which had not struck since the 665 H reform in Baghdad. Irbil provided first two copper types in the initial part of 671 H. Since these issue added to al-Mawsil's silver and probable gold, the region covered the full mix of coinage. The programme was still in flux, however, as Irbil then entered another special agreement that created an enclave for itself. Retaining its former monometallic structure, Irbil began to issue silver every other year starting over the cusp of 671–2 H. It also seems to have reduced its weight to 2.61 grams; like

the other mints in the region, its coins had a wide range. Thus, although the new agreement brought Irbil back into the fold, its tax was substantially reduced both in weight and collection times from the first agreement. Then the efforts of al-Mawsil concluded for the moment since it did not produce in 672 H.

Mardin, 669–71 H

In late 669 H, a third section was formed with Mardin as the centre. Still governed by the Artuqid Dynasty, Mardin supervised Jazira ibn ʿUmar and in the next period Hisn Kayfa. It followed al-Mawsil's timing, weight and initial monometallic policies. The unit weight of Mardin also seems to have been lowered from 2.75 to 2.61 grams, but the range is very wide. The striking feature that somewhat differentiated this section from al-Mawsil was that the district mints struck every other year, as Irbil's new agreement allowed it to do. Although Mardin's sites alternated, tax was forthcoming every year from the area. Mardin began by striking silver in late 669 and early 670 H. The agent then moved probably in the second half of the year to Jazira ibn ʿUmar, which produced silver in late 670 and the first part of 671 H. The weight of the issue is indeterminate because few specimens remain, and again there is a wide remedy.

Jazira ibn ʿUmar was definitely the poor relation of the whole territory; almost every type can be traced to another mint. For example, the obverse it used at this time was originally from Baghdad. In 659 H, Baghdad had a small series with a different die from the major one it used. Only one example is known, and its style was unique in that *Allāh* made up the top line.[29] The die was pulled out briefly to start the new 665 H Baghdad issue[30] and then returned to storage. Probably by late 665 H, the unused die or hub was sent to Jazira ibn ʿUmar. The city had it for the 665 and 667 H issues as well as this one and continued to use it until Arghun Khan's reform. This hub transfer was another sign that Baghdad had earlier assumed ultimate responsibility for the Jazira. Meanwhile, for this issue in 671 H, Jazira ibn ʿUmar put the old Baghdad obverse together with a reverse hub that the agent brought from Mardin.[31] One clear feature that identified the reverse as a Mardin die was the lack of a *nūn* on *Il-Khān*.[32]

After that ingenious issue at Jazira ibn ʿUmar, the official went back to Mardin, which produced silver in late 671 and perhaps in 672 H. Again, he found it necessary to employ old dies; he re-used at least one die from 670 H, producing many 670 obverses with 671 H reverses. The new region obviously had its problems with die supply, and this silver issue finished the programme.

For the whole Jazira, the most significant development during the transition period occurred in 671 H. The Mawsili diwan instituted the specialisation of metal production, which was an unparalleled concept for the Jaziran region. The idea presumably was derived from consortiums in the north, such as those between the Rum Saljuqs and Georgians. In this way, the coinage met one of the most difficult requirements of Islamic money, trimetallism. Along with the efforts of Baghdad earlier, this achievement alone indicated that the main financial administrators of

Hulagu's territories had vigorously pursued their own agendas and broken the previously clearly defined Mongol remit. Indeed, the diwan intended to improve commercial activity and adjust customs taxes to fit the practices of the Near East. There was no acknowledgment of a Mongol system based on the poll tax, and the region would soon project its policies onto Tabriz.

Such an active programme indicates the massive trading wealth and high degree of manufacturing skills of the area. Recognizing the source of income, political administration changed. The customs line was extended from the safety afforded by city gates and official caravanserais to include sites in a much wider region. Each city had a workshop that produced coins from the master design of the capital or borrowed hubs from it. Further, the calligraphy and minting schedules indicate that most cities had the artists, smelters but apparently not expert weighers to manufacture coins in the designated metal on demand. Consequently, the Hulaguid conquests showed a prosperity that was closely managed. Nevertheless, the province had to abandon its policies as Tabriz's main reform programme took hold in it from 673 H to early 674 H.

Second period, 671–80 H

Tabriz: combination of poll and trade tax systems

As Arghun Aqa came to terms with the full impact of the Battle of Heart, Baghdad and the Jazira were the government's only sources of revenue, giving desperately needed support to strengthen his position against Baraq. It was not until the latter's death in 670 H that Arghun Aqa had the opportunity to revise the realm's finances. Therefore, once the Chaghadaid threat had subsided, he returned to the capital, ordering a quick and small injection first of *qubchur* funds.[33]

Because of the momentous dislocation between 668 and 671 H, during which the main officials were divided between the Hulaguid territories and Khurasan, Tabriz had issued no coinage. Nevertheless, the Tabriz authorities learned from the policies in ʿIraq-i ʿArab and the Jazira and soon chose a compromise. One of Arghun Aqa's first acts, probably in 670 H, was to recall the Baghdadi diwan, thereby cancelling its policy, and restructure its programme. The action proclaimed that finances were still the responsibility of Tabriz. Nevertheless, the Baghdadi diwan took some time to alter course, finally arriving late in 671 H after minting had already started in Tabriz. Arghun Aqa's next act was to appoint a new mint master, whose policies suggest that he came from Gurjistan. If so, perhaps Arghun Aqa had made an economic alliance with the Jochids to open trade routes through the Caucasus. His emerging policy focused on commerce, so he accepted the merit of Baghdad's point of view. Tabriz now made an attempt at trimetallic production. By doing so, the mint master planned to adopt both Mongol and Islamic concepts to give Tabriz the status of a capital in both cultures. For the Mongols, he made the weight higher; and, for the Muslims, he issued three metals, especially gold. However, he did not completely abandon the *qubchur*.

In 671 H, the new mint master and his staff inaugurated a plan which incorporated some attributes of both the poll and trade taxes. In the same year, Masʿud Bag in Bukhara struck money again; he had already worked out a similar system using both taxes. In contrast, Arghun Aqa had maintained two separate regions for these taxes: the original area of Mongol domination had the *qubchur* tax whereas Hulagu's conquests had operated under the *tamgha* tax. In Tabriz, the 671 H reform was an interim move, however, because over the next ten years the diwan slowly retreated from the poll tax completely while developing a single and efficient customs or product duty for the entire Toluid territory. As a result, this shift required the regime to unify its accounting procedures, which in turn produced a single currency throughout the land. In complete contrast to the previous system, the coinage was eventually produced at many mints with the same type and weight. The whole reform was a massive undertaking and revitalized the economy of Greater Iran from a desperate low at the Mongol conquest to its highest point in centuries.

The revised policies started in 671 H at Tabriz this time, not at a regional mint. At the imperial level, it took two stages to work through various but fundamental problems. In the first one, three reforms occurred precipitously and simultaneously. They affected the coin's design and inscription, the balance of metal production and the weight standard. Unfortunately, the crash programme failed; so a second attempt was subsequently made. With it, the same reforms were introduced more slowly and thoroughly at two-year intervals: the inscription in 674 H, the metallic balance in 676 H and the weight standard in 678 H. Finally, once the full reform was accomplished, the last step was the application of the system to the whole realm so that monetization spread from Tabriz to most of the empire in 679 H. Thus, it took almost ten years to effect these major transformations of the financial system.

FIRST STAGE, 671 TO MID-674 H

The new mint master arrived in 671 H and took the insignia of a twisting volute similar to an arabesque. The mark was placed at all four cardinal points on the obverse and on the top of the reverse. Immediately, Master Arabesque initiated the first and almost cataclysmic changes in Tabriz. First, he cancelled the important monometallic tradition of the imperial mint as it struck petty currency in the form of copper and the quarter silver unit. The petty copper followed, in general, the former silver inscription except for adding *ṣallā Āllāhu*/"May God bless" at the bottom of the *shahada*. Further, it had the former silver reverse legend of *Qāʾān al-ʿĀdil*, but the hexagon disappeared. Although the obverses of the two coins known are too worn to determine a mint or date,[34] their reverses are similar to a fractional silver unit which does state *Ḍarb-i Tabrīz* on the obverse with an arabesque at the bottom.[35] The weights of the copper coins, unfortunately, are wildly disparate, suggesting that this initial coinage was produced in some haste. The emissions of both copper and fractional silver indicate that the administration

was in great need of money and experimenting with quick collections. Thus, only after the Battle of Harat did small denominations, starting with copper, begin to appear in Greater Iran.[36] The power to do so came from the disengagement from the old imperial system.

Soon, the leading aspect of the reform began with the production of the single unit of silver. As usual, silver was the main metal; and minting probably began in Shawwal, the tenth month, of 671 H.[37] Then after the busy start, nothing was emitted in any metal in 672 H[38] as the diwan moved to regional mints that year. In the middle of the year 673 H, Master Arabesque returned to Tabriz to strike silver twice, two months apart, in Rajab[39] and Shawwal again.[40] Then in 674 H, he issued silver once more but gave no month.[41] The policy provided small output and exhibited an erratic aspect that displayed weakness. Tabriz was hesitant about the way forward.

(1) Design The single silver unit announced this reform with a slight change in the design and inscription. The square on the obverse was dropped while the hexagon on the reverse took a more fluid shape; it was open in the centre and curved around the points. This modification easily lends the series the title of the Curved Hexagon. The coinage kept the symbolic flavour of the previous coinage, making it still announce "this is a coin of two-thirds".[42] Its purpose seems to have been to accommodate the poll tax as the customs tax was slowly introduced.

(2) Inscription The inscriptions on both the obverse and reverse, in the new spirit of the time, changed in order to combine features from both the Hulaguid and imperial regions. The new Tabriz inscription was a clear demonstration of the viewpoint the administration held of its current role in the Mongol Empire and the way it was realizing that vision. Master Arabesque was reforming the entire system, ready to join imperial with conquest lands, and thereby to distance Greater Iran from the *yasaq* of Chingiz and Mongka Khans. However, since the inscription kept the superficial mantle of Chingiz Khan's money, it granted the new type a necessary legitimacy.

On the obverse, the marginal minting formula restricted itself to the date, using the top and bottom sections. Inside, the legend was lengthened to five lines as *Lā ilāh illā Āllāh/waḥdahu lā sharīk lahu/Muḥammad rasūl Āllāh/ṣallā Āllāhu ʿalayhi/wa sallim*/"There is no deity but God/He has unity; He has no associate./Muhammad is the messenger of God,/may God's blessings be upon him/and be protected from harm" as illustrated in Plate 6.1. This legend had not appeared before in Tabriz or the east. Instead, it was a combination of the original short Tabriz formula with Mawsili and Baghdadi protocols: the second line was taken from the previous Mawsili type at the beginning of Abaqa's reign in 664 H and the last two lines from Baghdadi coinages.[43] The inscription was declaring that the former Hulaguid territories were now integrated with Tabriz.

At the same time, the reverse inscription also changed slightly. The full minting formula was added to the margin of the reverse, giving the date twice; and the

Obverse Reverse

Plate 6.1 Curved hexagon type (Tabriz) (Date: 671 H; weight: 2.73 grams; metal: silver) By permission of S. Album. Double actual size

interior field stated in two lines an Arabized *al-Qā'ān al-Ā'ẓam al-ʿĀdil*/"The Qa'an, Supremacy, Justice". These words are not to be read as "The supreme, just emperor" since the forms were not adjectival. The two words of *ʿaẓam* and *ʿādil* showed the same integration as the obverse.

The local bureaucrats in Hulagu's territory had used the word *ʿaẓam*, but not *ʿadl*, with a name. Adding *ʿaẓam* to Tabriz's inscription, however, did not mean that the director was altering a basic Mongol tradition. At no time in either the second or the third imperial province had the diwan ever provided a personal name to accompany the title of the ruler. The *khāqān/qā'ān* was never individually identified. In stark contrast, the khans' names had appeared on most vassal coinages earlier, that is in the appanage territory and that belonging solely to Hulagu and his family. When a name appeared, so did the word *ʿaẓam*. Consequently, at the point of this reform, the adjectives *ʿaẓam* and *ʿādil* had long been separated, the former appearing in his conquered area and the latter in imperial territory. In short, the words had come to identify particular administrative regions.

In addition, the two terms also had political implications for the eastern area. The charismatic words *ʿaẓam* and *ʿadl* had originated in the coinage of Chingiz Khan. They had never lost emotive importance, being expressed and re-inforced continuously only in the east. In the west, by contrast, Kirgiz had chosen the last Kurriman inscription of 622 H, containing just *ʿadl*, for the inaugural coinage of Arran. Subsequently, for the next thirty-four years, with the exception of the trade *ʿAmara hā* and Horseman types, the third province had used the same legend. At this point in 671 H, tradition in the west joined that of the east with the re-unification of the two words. Therefore, the reverse indicated that Greater Khurasan, confirming the success of the Battle of Haart, was now also linked with Adharbayjan. There was one policy under the direction of Tabriz.

In summary, both the reverse and obverse of the 671 H Tabriz type announced a new unified financial structure of the whole regime. The two words of *al-ʿādil* and *al-ʿaẓam* re-asserted the Chingizid tradition from the east as well as combined

the two different administrative regions of the west. On the obverse, the amalgamation of the short *shahada* from Adharbayjan with the longer ones from the il-khan's province also joined two regions. As a result, both sides of the coin gave a political statement of unity.

(3) Weight reform and quality control The weight was another aspect that concerned Master Arabesque in 671 H.[44] The design modification announced his reduction of the silver unit from 2.83 to 2.75 grams. With this reduction, he not only de-sanctified the 2.83-gram standard but also chose a different basis: he left the 4.24 for the 4.125-gram mithqal. The latter had more usage in Rum, ʿIraq-i ʿArab, ʿIraq-i ʿAjam, Khurasan, the further east and had been applied to the previous Mongol Arrani Horseman trade coinage. Besides the great currency of this particular mithqal, there was another reason for choosing it: the unit fitted into the standards used locally. Earlier, this factor had supported the Horseman coinage as a compromise between Gurjistani and Adharbayjani unit weights, facilitating the money for use in the commerce of Arran with the two other regions. In spite of the fact that times had changed by 671 H, the same weight was now a compromise between the Mongol capital and several of its sub-regions. Therefore, although there may have been two excellent reasons for adopting the unit weight, one being its general use and the other its internal compromise value, integration was the more powerful factor, as discussed further shortly. Accounting procedures were not disturbed because the unit kept the same principals; the coin weighed two-thirds of the mithqal or 16 carats. This unit weight lasted from 671–8 H in Tabriz alone.

The design was an external indication of adjustment to a different mithqal, but there was more behind the change. In addition, Master Arabesque relaxed quality control as he loosened the amount of deviation. From 671–6 H, the Curved Hexagon, followed by the next coinage, had a wide range that compared almost exactly with the Horseman coinage. The tolerance reached from 2.63 to 2.87 grams, giving it a midpoint of 2.75 grams. In relation to all of Tabriz's production, the range for the main group of this coinage was exceptionally wide. At the inception of the Tabriz system in 650 H, the Hexagon issues had attained a well-managed and limited spread of only 0.08 of a gram or half a carat.[45] This remained the case throughout the series for fresh coin. However, after the various conquests, other coinages were re-stamped, which more than doubled the spread from the mid-point, expanding it to 0.18 of a gram. From 671 H, the Curved Hexagon reached a spread of 0.25 of a gram.[46] The looseness made each end only 0.05 of a gram short of a two-carat spread from the mid-point in the new mithqal. Nevertheless, the increased distance from the centre point did not obscure the change of standard, which was the basis of the accounting system.

The expansion of the circulating tolerance earlier was, perhaps, the result of two specific programmes, but with the Curved Hexagon series Master Arabesque had calculated the result well. First, the wide remedy was a sign of compromise. In other words, the government accepted all previous coinages at the current value. By extending the remedy, Tabriz could encompass not only coins with its previous

weight of 2.83 grams but also those of subordinate regions. In 671 H, these regions consisted, first of all, of Bagratid Gurjistan, which had been minting at 2.61 grams since 665 H and continued that weight until 678 H. Also minting at this weight were Irbil, al-Mawsil and Artuqid Mardin, the two most copious mints in the Jazira, which also had district sites. Interestingly, the group had just reduced its weight from 2.75 grams. On the other hand, al-Hilla was at 2.87 grams for its special minting of 670 H before the reduction in Tabriz took place. Therefore, Tabriz started its reform by recycling much of the money from the entire realm, especially that of the Jazira, a most cost-effective method for putting its finances back in order.

The wide remedy provided enough bullion to make the reform succeed; but since the body politic theory still prevailed, Tabriz had to have the highest weight. Therefore, at the beginning of the reform, Tabriz had forced the other mints to lower their weights to the Tiflis one of 2.61 grams. This important change lasted until 678 and 679 H, respectively, in al-Mawsil and Mardin.[47] The Jazira was thereby in tandem with Tiflis. Therefore, from 671 H, the subordinate regions were lower than Tabriz but equal to each other. Since these areas employed trade coinages, this reduction was a drastic measure for them. Tabriz applied the theoretical structure of the body politic view of money to the whole empire's accounting system. Therefore, both the design and weight of the Curved Hexagon imply that the *qubchir* tax for Tabriz and the *tamgha* tax for the provinces were being more fully integrated.

Although the wide remedy may give the sense of a chaotic situation, the effect was to level various exchange rates at the central tax office and in the markets of the rest of the empire. Establishing parity within the realm was distinctly a compromise en route to a single type and a single weight. Thus, the 2.75-gram unit weight and wide remedy made the task easier for Tabriz's tax officials to accept the former and present coin of most mints. The move ultimately helped the reform to succeed at a later date once other complications had been resolved. All of the compromises that occurred in the categories of metal, inscriptions and weight proclaimed the role of the new coinage. Specifically, it was not limited to the capital but, for the first time, led an integrated system among several mints. Eventually, a universal coinage evolved with equality rather than hierarchy in the mint structure, whose purpose followed the Jaziran model of taxing commerce at various important urban trading centres.

The above analysis of the reform points to the possibility that Master Arabesque was a Georgian. One sign is the capital's inscription. Although the Tabriz mint master was aware of the traditions of both the centre and the regions, he favoured the Georgian practice of putting the month on the issue, a practice found only in Tiflis at this point. Further, since Tabriz was developing an iron grip on all regions, he gradually imposed the Gurjistani weight on them. That weight progressed in 671 H from the mints of the Jazira to Kashan in 672 H and finally to Fars in 673 H. Moreover, this weight would have allowed a co-ordination of exchange activities between Abaqa's realm and the Golden Horde.

EXPANSION, 672 H

Tabriz began to enlarge its nascent system into ʿIraq-i ʿAjam, Gurjistan and Fars in 672 H. First, it expanded into ʿIraq-i ʿAjam, starting in that region probably because it was conveniently and safely located in the centre of the realm. This effort was the first monetization of ʿIraq-i ʿAjam, and it began the region's extremely close association with Tabriz's policy. Its two chief cities of Kashan and Hamadhan issued the new silver type of Tabriz. The capital produced the hubs, but the production site inscribed the mint names. The two were the first cities ever to use the same type as Tabriz. The practice was a significant step because it signalled that the cities were part of a unified mint structure. However, Kashan and Hamadhan each used a different standard; so the same type did not yet mean a common unit weight. Apparently, each struck according to a different directive. Hamadhan minted at 2.83 grams[48] presumably because of precedent, calling on its brief issue of 655 H for Hulagu at that weight. If so, the position it took was just one of many nuances in the evolution of the empire which reveal that Hulagu's dispensations or orders were as sacrosanct as those of Chingiz Khan. Although Hamadhan's weight was higher than that of Tabriz, it could be accommodated within the wide tolerance of the period. In contrast, Kashan struck at 2.61 grams,[49] which as already noted, co-ordinated with al-Mawsil, Mardin and Tiflis. Thus, merchants from these areas could closely link their trade and directly benefit from easy market exchanges.

From ʿIraq-i ʿAjam, the diwan moved to Gurjistan in mid-672 H. The administrator imposed the new Tabriz design and inscription from 672–3 H and seems to have continued the weight at 2.61 grams although the coins have a wide range. He presumably made two collections for one tax season, again the register extending over two lunar years.[50] The type probably came from a new area under Mongol control, the western region of Samtskhe. The area had become independent from Tiflis several years earlier,[51] but only now did it seem to emerge as a separate entity and accept Mongol hegemony. The Samtskhe region had the major port of Batum, a convenient location for coastal trade with Saray. Therefore, this money could have been a one-time payment to Mongka Temur (665–79 H/1267–80 AD) to secure commercial privileges to the fur and mineral trade that came down the rivers and through the steppe. If so, the route between Saray and Tabriz now also led from the northern shore of the Black Sea through Western Georgia to Tabriz rather than solely through the difficult passes and into Tiflis. The possibility of such commerce and expansion of routes would explain the lack of previous activity in ʿIraq-i ʿArab. The realm's reliance on income from trade had shifted from Baghdad to the Jazira[52] since all the regions were aligned with Gurjistan. Therefore, the weight evidence and this coinage suggest that the Caucasus, whether the western or central region, was now the chief conduit of trade. Moreover, the loose commercial alliance Abaqa had with the western steppe ruler prevented the ruler from having a strong tie with the Chaghadaids. Control of this coinage was entrusted to the Mongol mint at Tiflis, and it was issued simultaneously with the Tabriz Hexagon type that had been forced on the eastern Georgians in 660 H, which continued until 680 H.

After completing work in Gurjistan, the diwan gave attention to Fars in late 673 H to enhance its activity and bring the weight in line with the other regions. At the very end of Hulagu's reign, Fars had been allowed to mint for the first time under Mongol rule. From 663–5 H, Shiraz had issued silver and copper with only *Qā'ān al-ʿĀdil*, which indicated that it was imperial domain, ultimately subject to Tabriz. However, once Abaqa's own mint policy had developed, Fars inaugurated its new mandate with a gold issue from Qir-i Shiraz in 665 H. The legend followed in the footsteps of Baghdad with the title of *pād-i shāh*, but not of *il-khān*. On it, the legend read *Qā'ān al-ʿĀdil/Ābāqā Pād-i Shāh-i ʿĀlam*.[53] Fars maintained its atabag status by keeping Abish's name on the obverse and by adding the khan's name on the reverse. Shortly, it replaced the *pād-i shāh* title with *il-khān*. This occurred perhaps about 668 H, although the series has no date, as Fars reverted to issuing copper. Then, the legend changed to *Qā'ān al-ʿĀdil/Ābāqā/Il-Khā n al-Muʿaẓẓam* with Abish's name below the *shahada*.[54] It was probably at this time that an undated and mintless silver series came out with the same format.[55] All types still continued to carry the word *al-ʿādil*. At this point in 673 H, the diwan went back to gold and explored the Baghdad style with *Qā'ān, Pād-i Shāh-i ʿĀlam, Il-Khān al-Aʿẓam, Ābāqā* with Abish's name again below the *shahada*. In 675 H, Shiraz had another gold issue with the same inscription.[56] Then, in 678 H, Abisih struck silver modelled on the gold but left out one title. The legend read *Qā'ān/Pād-i Shāh-i ʿĀlam/Ābāqā khallada/mulkahu* with no *il-khān*. At this point, apparently, it also minted undated and mintless half and third silver pieces with *Qā'ān al-Aʿẓam/Ābāqā/khallada mulkahu* with Abish's name still below the *shahada*.[57] The weights of the silver had a wide range with an average of 2.79 grams. Since the individual coins vary so greatly, it seems that Shiraz did not actually produce its own flans but took in old coin from neighbouring regions and simply re-stamped them.

Meanwhile in 674 H as the reform changed in Tabriz, a section of the Fars bureau went on a special mission. From the evidence of the inscription, the sub-diwan travelled to Dhihistan, in which Astarabad[58] and then Damaghan[59] struck tribute gold with random weights in early 674 H. Damaghan followed the Baghdad legend Fars later adopted in 678 H of *Qā'ān/Pād-i Shāh-i ʿĀlam, Ābāqā* but left out *Il-Khān al-Aʿẓam*. Meanwhile, Astarabad had *Qā'ān Pād-i Shāh-i ʿĀlam Il-Khān Ābāqā, Astarabād* but contained no date. The unique Dhihistani tribute payments were perhaps demanded as proof of loyalty from the two regions so close to Chaghadaid territory. They still retained a special status as buffers between the two *uluses*. This was the furthest extension of Baghdad's title for Abaqa. After this, the department disbanded.

These three stages just reviewed were all dramatic alterations undertaken to accomplish several goals. Their initial success may have developed further except for an important factor: Arghun Aqa died. The government was taking hesitant but pragmatic steps as the weight and inscription reforms indicate. However, unfortunately, the reform was not yet strong enough at the end of 673 H to withstand his death. The coinage was, in a way, a eulogy to him as well as to Nasir al-Din

Tusi. With Arghun went a symbol of the old Mongol ways. He and his culture had been counter-matched by Nasir al-Din Tusi, who had died a year earlier in 672 H. As the great intellectual of the age, Nasir al-Din Tusi had best stated[60] and undoubtedly influenced Hulagu to use indigenous Islamic monetary ideas for the coinage of his conquered territory. The conflict of Mongol with Islamic tenets, which could be observed from the Tabrizi and Baghdadi coinages, was fully embodied in these two outstanding figures. Arghun Aqa and Nasir al-Din Tusi personally highlighted the dichotomy of previous policies. Important contradictions between the two worlds that each represented had already started to be resolved, and compromises were to continue with the next phase of monetary development.

In summary, the Tabriz 671 H reform manoeuvred weight, inscriptions and metallic distribution in the first attempt to integrate Adharbayjan, Gurjistan, the Jazira, ʿIraq-i ʿArab, Fars and ʿIraq-i ʿAjam into a single union. By the end of 673 H, however, that attempt had drawn to a close. In the light of future events, Tabriz had taken small but significant steps to reform and unify the empire's monetary activities. First, it had a reminder of imperial Khurasanian forebears in the inscription, and it amalgamated all the regional distinctions in the new legend. Second, commercial interests came to the fore and dictated a return to the commonly used mithqal of 4.125 grams. Finally, a trading partnership with the Jochid merchant companies apparently took place, which employed the 4.48-gram mithqal at 14 carats or 2.61 grams to coordinate money with Saray.

The Jazira, 673 through 675 H

Since the Baghdad mint had been shut since 670 H, all financial activity in the region had moved to the north. Then at the death of Arghun Aqa, the Jazira changed its status and policy. The ensuing period can be divided into two stages. The first began in 673 H and continued through 675 H, a three-year time-frame, in which the two leaders of al-Mawsil and Mardin ran separate agendas. The second stage ran from 676–9 H. It started with an attempt by Tabriz to sort out Baghdad. After the first year, there was a hiatus in the Jazira of one year followed by a brief but active programme for 678–9 H. The following discussion is itemized in Table 6.1.

The major sign of the reform was that al-Mawsil removed Hulagu's name in 673 H and replaced it with *Abāqā Il-Khān*, signifying a change in status. Moreover, during both stages, the agent in al-Mawsil continued the trimetallic policy with a slight amendment. He produced a full range of currency, issuing gold and copper at the beginning of the year in 673 H and then silver over the cusp of 673–4 H. Also in 673 H, he had a simultaneous production agenda for the region, letting different mints issue one of these metals each year alongside al-Mawsil. The new policy was announced by al-Hilla striking silver in 672–3 and continuing in 674–5 H. Meanwhile, al-Mawsil issued copper at the same time as Sinjar did at the beginning of 673 H. The significance of this distribution aspect of its policy was indicated by a change of al-Mawsil's *tamghas*; it moved

Table 6.1 Hulaguid territories, 668–79 H

	Baghdad	*Irbil*	*Mawsil*	*Sinjar*	*al-Hilla*	*Mardin*	*Jazira*	*Hisn*
668	Au[1]							
	Ae[2]		Ag[3]					
669	Ae[4]		Ag[5]					
					Ag[6]	Ag[7]		
670	Ag[8]		Au[9]		Ag[11]	Ag[12]		
			Ag[10]				Ag[13]	
671		Ae[14]	Ag[16]				Ag[18]	
		Ag[15]				Ag[17]		
672		Ag[19]						
					Ag[20]			
673			Au[21] Ae[22]	Ae[24]	Ag[25]			
			Ag[23]				Ag[26]	
674		Ag[27]	Ag[28]					
					Ag[29]			Ag[30]
675					Ag[31]	Ag[32]		
676		Ag[33]	Ag[34]					
			Au[35]				Ag[36]	
677	Au[37]							
	Ae[38]							
678		Ae[39]	Ag[40]	Ae[41]	Au[42]			
							Ag[43]	
679						Ag[44]		
						1/2Ag[45]		
						1/3Ag[46]		
						Ae[47]		
680								

Notes
Au – gold, Ag – single silver, Ae – copper, ( ) – probable.

1 British Museum 1884.7.3.112; 6.91 grams.
2 British Museum 1884.7.3.286; 7.95 grams.
3 Yapi ve Kredi Bankasi 10299; 2.75 grams.
4 Iraq National Museum 393; 8.07 grams.
5 Yapi ve Kredi Bankasi 10301; 2.72 grams.
6 British Museum 1973.11.10.1; 2.41 grams.
7 Islamic Museum (Cairo) 23158/2; 2.51 grams, with hole.
8 American Numismatic Society 30.168.77; 2.43 grams.
9 Yapi ve Kredi Bankasi 10284; 4.30 grams. The gold coin for 670 H is possible, but the mint is insecure.
10 Steve Album, private collection; 2.92 grams.
11 American Numismatic Society 56.163.156; 2.59 grams.
12 British Museum 1922.7.17.68; 2.47 grams.
13 Yapi ve Kredi Bankasi 10346; 2.55 grams, with hole.
14 There are two designs: (1) three running hares with the minting formula around the margin on the obverse, and *Abāqā Il-Khān* with the *shahada* in the margin is on the reverse; Bank Sepah, no number; 5.65 grams; (2) the *shahada* with the mint formula in the margin is on the obverse, and *Abāqā Il-Khān* is above a single hare on the reverse; Kunsthistorische Museum (26) 948; 3.55 grams.

continued...

Table 6.1 Notes, continued

15 Iraq National Museum 24105; 2.83 grams.
16 Yapi ve Kredi Bankasi 10325; 2.22 grams, with hole.
17 Yapi ve Kredi Bankasi 10306; 2.55 grams, with hole. Many specimens have *670* H on the reverse and *671* H on the obverse.
18 Ashmolean Museum 57; 2.48, with hole. It has a Mardin reverse.
19 Iraq National Museum 24097; 2.62 grams.
20 Bibliothèque Nationale 1970.341; no weight. The date is insecure.
21 British Museum 1885.10.4.39; 4.47 grams.
22 The series started with the former obverse dies containing a head in a square but then changed to *Abāqā Il-Khān* with the *shahada* in the margin; Lane-Poole 55; 3.58 grams. After that, the city chose a new symbol of a seated cross-legged ruler holding a crescent on the obverse with the mint and date in the field, which was combined with the same reverse as the first type; Lane-Poole 53; 6.55 grams.
23 Steve Album, private collection; 2.66 grams.
24 Ashmolean Museum 66; 3.96 grams. The obverse design has a standing ruler draped in a mantle with the mint and date in the margin. The reverse states *Qā'ān al-Āczam/ Hūlāgū Il-Khān* only with the *shahada* in the margin.
25 Iraq National Museum 22594 (A); 2.42 grams.
26 Yapi ve Kredi Bankasi 10289; 2.55 grams. The inscription lists Hulagu as the il-khan.
27 Bibliothèque Nationale (S 51), no number; 2.45 grams.
28 Iraq National Museum 22502 (A); 2.64 grams.
29 British Museum 1969.5.12.16; 2.65 grams, with two holes.
30 American Numismatic Society 00.999.1561; 2.79 grams. It has *Mūngkā Qān, Hūlāgū Khān*.
31 Iraq National Museum 19065; 2.62 grams.
32 British Museum 1973.9.11.5; 2.60 grams. It has *Hūlāgū Il-Khān*.
33 Smithsonian Institution 75.46.0079; 2.96 grams.
34 American Numismatic Society 49.163.379; 2.48 grams.
35 Yapi ve Kredi Bankasi 10343; 5.75 grams.
36 British Museum 1922.7.17.69; 2.56 grams. It has *Hūlāgū Il-Khān*.
37 Steve Album, private collection; 4.21 grams. Only this coin is known; and the mint, unfortunately, is illegible. However, the style of the obverse is that of Baghdad. The reverse is Tabriz's new Mongolian type.
38 Ashmolean Museum 88; 4.47 grams.
39 There are three types: (1) the obverse has a hare above a double-headed eagle with a marginal minting formula, and the reverse has *Abāqā Il-Khān*; Bibliothèque Nationale, no number; 3.87 grams; (2) the obverse has a diving, upside-down heraldic eagle with the *shahada* and mint in the margin, and the reverse has *Abāqā Il-Khān*. There is no date. The mint is *Qaṣr*, probably the citadel of Irbil because the calligraphic style is that of Irbil; Münzsammlung 85159; 4.05 grams; (3) the obverse has a horseman with a large falcon on his arm, and the reverse has *Abāqā Il-Khān*. There is no date or mint; J.C. Hinrichs, private collection; 3.03 grams.
40 American Numismatic Society 49.163.379; 2.48 grams.
41 Steve Album, private collection; 5.64 grams. It has a 665 H obverse saying *dirham* and a 678 H reverse saying *fals*. The reverse inscription forms a circle around the central field of confronting peacocks.
42 Iran Bastam Museum 239; 4.75 grams.
43 Yapi ve Kredi Bankasi 10324; 2.85 grams. The reverse changed at this date to *Ābāqā Il-Khān*.
44 British Museum 1973.9.11.4; 2.58 grams.
45 Yapi ve Kredi Bankasi 10328; 1.50 grams. Small denominations always added up to slightly more than the single unit. The date is 679 H.
46 Yapi ve Kredi Bankasi 10319; 0.92 grams. The date of this specimen is off the flan, but the type is that for 679 H.
47 British Museum 1881.7.6. 44; 2.42 grams. It states *Hūlāgū Il-Khān*.

from its old Lu'luid design of head-in-square to a cross-legged seated monarch holding the crescent of power that enclosed his upper torso. On the other hand, Sinjar used exactly the same style of its first copper production in 662 H except that it changed the date. The reverse even continued to state *Hūlāgū Il-Khān*. For the third metal, gold, al-Mawsil kept it alone as a mark of its leadership.

In the other region of Mardin, policy differed from that of al-Mawsil. It remained static as the city continued to use dies stating *Hūlāgū Il-Khān*, to alternate regional production and to retain the monometallic silver policy. On the other hand, since all the mints from this region now also followed the al-Mawsil silver model, there was still a high degree of co-ordination between the two provinces. Because the last minting had occurred in Mardin in the previous period, the agent went first to Jazira ibn ʿUmar in 673 H. After a silver issue there, he moved to Hisn Kayfa on the bend of the Tigris River almost mid-way between Jazira ibn ʿUmar and Mardin. This was the town's first issue since 658 H when it had submitted to the Mongols and also used old *Mongkā Khān* dies from that time. There, the official minted probably in the last half of 674 H. Finally, he returned to Mardin and struck coins in early 675 H. This region was not as powerful nor apparently as rich as al-Mawsil. Only half the previous tax seems to have been levied in these years because there was only one issue from each mint. On the other hand, there were no longer any semi-independent coinages; the areas used standard dies even though out-dated. The main task of the supervisor in this period, apparently, was to impose tight Mongol administration on Mardin and its adjacent territory.

Tabriz: second stage, mid-674–80 H

At Tabriz in 674 H, the second stage of the central reform began, which was signalled by Master Arabesque stepping down from his main role. This time, the changes moved more slowly and progressed through four levels rather than marching forward all at once. Unfortunately, without Arghun Aqa and Master Arabesque, the new supervisor developed a complicated interrelationship between the Hulaguid and imperial territories that is particularly reflected in the types of metals issued at each mint. These changes required a more visible and, therefore, presumably a more powerful mint master in Tabriz. Instead of the Georgian, Master Arabesque, a highly educated Uighur or Mongol now took charge and launched the first of four dramatic developments. The first of his reforms was the creation of a different design and the introduction of Abaqa's name in Tabriz; the second change, conducted by Master Arabesque, was another effort to reunify the empire through a trimetallic structure centred at Tabriz; the third was the redefinition of the empire's weight system; and the fourth, also conducted by Master Arabesque, was the expansion of the monetary scheme to other parts of the realm. At the end, the diwan created a completely new world of Mongol coinage and propelled forward the ease and efficiency of economic transactions.

MONGOLIAN INSCRIPTION, 674 H

So far in the transition, each section of the empire had taken on aspects of the other's basic system, Mongol features appearing in ʿIraq-i ʿArab and Islamic ones in Adharbayjan. In general, however, the imperial area had retained its former system, forcing the area in 674 H to focus once again only on silver. The returning monometallic currency was a respite from the previous three years of hectic events, and the stabilization seemed to have helped the Tabriz mint master to implement an enormous decision. He made the money truly Mongol by choosing a Mongolian legend in the Uighur script, already the official writing system for documents. The cursive connected letters were a potent symbol of supremacy, announcing the second stage of the programme.

The obverse exhibited the message of stability by completely resuming the traditional style of Tabriz, using only *Lā ilāh illā/Āllāh Muḥammad/rasūl Āllāh* inside the previous square with the minting formula around the outside. The one innovation was a star in the open space of *ilāh* between the *lām* and *hā'* on the top line,[61] the new location of the mint master's *tamgha*. Prior to this, the symbols on the Hexagon coinage had appeared above the word *Muḥammad* on the obverse and above or next to *ʿādil* on the reverse and on the edges of the Curved Hexagon type. The new placement of the mark lasted until Ghazan's reform in 696 H. Other than the star *tamgha*, the obverse revealed little of the reform. It was otherwise with the reverse since it dramatically heralded the moment. Master Star ordered a complete change. The long retention of frozen types finally gave way to a different statement of Mongol identity. With the different outlook, the Toluids abandoned the languages and scripts of the Arabs, Persians, Georgians and Turks that were foreign to the ruling class in favour of its own language, Mongolian in the Uighur script. The new writing system had long been used in the Central Asian homeland and now became the normal format for Mongol numismatic inscriptions for the next thirty years, i.e. until 704 H. This lengthy series is labelled the Mongolian coinage and represents the consummate achievements of the Mongols in monetary theory and practice.

The flexible Uighur script was a form of Syriac written from right to left in Iran and other places under the sway of the Arabic alphabet but from top to bottom in areas under Chinese influence. Coinage is one and perhaps the earliest example of official Mongol usage of the script. At this stage, the chancery in Tabriz pursued the traditional method of writing it horizontally. Only when the script moved to China did the clerks simply rotate the messages backward or counter-clockwise a quarter turn. As a result, vertical Mongolian script is read, even today, from left to right rather than right to left like Chinese.

The new inscription in the new writing on Abaqa's coinage read from the top down as *khaghanu/nereber/Abaghain/deledkegülük/sen* but must be translated into English from the bottom up as "The/coinage/of Abaqa/in the name/of Khaqan" as illustrated in Plate 6.2. This inscription alone marked the major transformation of the system. Not only were the language and script innovative, emphasising Mongolian hegemony, but the legend was also transformed from the Chingizid prototype to mirror the Islamic format. In the first place, there was a partial minting

Obverse

Reverse

Plate 6.2 Mongolian type (Tabriz) (Date: 679 H; weight: 2.37 grams; metal: silver)

Source: © Copyright The British Museum 1884.7.3.284. Actual size.

formula that had the Mongolian causative-passive *deledkigülük sen*/"that to be struck" or "the striking" as the equivalent of the Arabic causative-passive *ḍuriba*. Second, the top two lines followed the Islamic/Christian style of "in the name of God" by simply replacing *Āllāh* with *Khaghan*. This is a case in which *khaghan* plays a religious role, stressing the charismatic aspect of Heaven-given authority that gave the word a superlative sense resembling God.[62] In the third place, the legend contained the name of the ruler. That fact, in itself, most strongly emphasised the administration's adoption of indigenous monetary and economic concepts. Not only did the coinage of Tabriz proclaim the ruler's name for the first time, but *Abaqa* was also on the reverse only, the location of the statement of positive law in Islamic monetary tradition.

Therefore, as with the joining of *ʿadl* and *ʿaẓam* in the Curved Hexagon coinage to represent a unification of the regions, the Mongolian series also tried to join the areas. Initially, the focus continued to be a conceptual rather than a purely geographical alliance. Further, the amalgamation was truly a compromise, not a take-over by the Islamic tradition. The most salient proof is that, although the ruler now had a name, he did not have a title alongside it, thereby retaining a standard Mongol practice. Consequently, not only was the new reverse in the Uighur script and the Mongolian language but it also followed Mongol custom by having no title attached to the ruler. Nevertheless, the two territories were still far apart as evident from the copious coinage of the Hulaguid territories, which still boasted a different type completely. There, everything was written in Arabic script; and the reverse gave Abaqa a title. The latter part was but a continuation of local Islamic practice since, under Hulagu, the area had denoted Mongka as *qā'ān* and Hulagu as *khān*. In essence, the crucial visual reforms in both regions certainly indicated a new force directing the financial affairs of the realm. The inscriptions were the first steps on a road that led through uncharted terrain.

The Mongolian silver type was struck only in Tabriz. Meanwhile, the *Hūlāgū Il-Khān* type continued to be struck in al-Mawsil, al-Hilla and Irbil as well as Jazira ibn ʿUmar, Hisan Kayfa and Mardin. The *Ābāqā Il-Khān* type that had appeared in Baghdad and later in Shiraz had terminated by this time. The term remained only in al-Mawsil but in a different form, notably without *pad-i shāh* added to the title. In 675 H, the magnitude of the change of policy became obvious. Tabriz closed all

mints by the middle of the year, and Master Star cancelled the *Hūlāgū Il-Khān* type. As a result, besides Tiflis, only Tabriz minted in the last part of the year.

METALLIC REDISTRIBUTION AND CENTRALISATION, 676–8 H

In 676 H, two years after the first reform, the empire was realigned; and the initial steps were taken to unify again the provinces with the centre. To promote the policy, a new finance director, Master Circle, concentrated on metallic production. In essence, he controlled all decisions about any metallic output. His ultimate goal was to spread production over all the regions and then to balance the output of various types of money over time. Tabriz started by centralizing the complete coinage system within itself, which was a vestige of the body politic principles. Therefore, in 676 H, it struck every metal, first silver, then copper and finally gold. By so doing, the diwan signalled its final and complete acceptance of the trade tax; the poll tax had seen its last days in the capital. Like the ruler's name in the inscription, this act of trimetallism should not be interpreted in traditional Islamic terms as the sign of a capital although, as long as the policy lasted, it provided Tabriz with status in local Islamic eyes. The Mongols had never followed this practice, nor were they doing so now. Rather, the money broadcast Tabriz's sustained intent to unify the former Hulaguid and imperial territories.

Although each of the three metals from Tabriz had the same basic Mongolian legend in Uighur on the reverse, each distinguished itself by a slightly different obverse design. As for silver, the main coin, the mint continued the same 674 H design. Since the backbone of the currency was strong and left untouched, its production started before that of the other metals. As for copper, Tabriz opened a new door to it. The metal provided more than a local and subsidiary coinage as it developed definite roles within the complete system. Tabriz struck its second copper coinage in 676 and again in 678 H, on which the obverse margin held the minting formula and the internal field simply read in two lines *li-llāh/al-mulk*/"To God belongs/authority". The phrase of *al-mulk li-llāh* was subsequently the normal inscription after this reform on many small denominations, especially copper. The margin was not original, however, but followed the same formula of the 671–4 H Curved Hexagon Arabic silver coinage but without the month of the issue and final star. The reverse had a short form of the current Mongolian silver legend, namely only *khaqanu/Abaqa*. Additional stars were placed at the top and bottom, reminiscent of the placement used by Master Arabesque. Unfortunately, no weight pattern is discernible since only one coin is known so far for each of the two minting years.[63]

Significantly, Tabriz also struck in 676 H the incomparable metal of gold and also set purity and weight standards for it that did not change until the early 690s. The legend followed a conservative pattern, having the same obverse design as the silver of 671 H but dropping *waḥdahu la sharīk lahu* to add an invocation at the top. Therefore, the whole inscription read, in five lines, *al-ḥamdu li-llāh/lā ilāh illā Āllāh/Muḥammad rasūl Āllāh/ṣallā Āllāhu ʿalayhi/wa salllim*/"Praise be to God!/There is no deity except God./Muhammad is the messenger of God./May

God's blessings be upon him/and be protected from harm". The margin started at 1 o'clock and contained the classic minting formula of *ḍuriba hadhā al-dīnār bi-madīna Tabrīz sana sitta wa sabaʿīn wa sittamiʾah*/"This dinar was struck in the city of Tabriz, year six and seventy and six hundred". On the other side of the coin, the reverse added *arighu altan* at the bottom of the same legend used for silver to read "Pure gold/the coinage/of Abaqa/in the name/of Khaqan". Above all the lines, three stars shone at the top.[64] The weight was approximately 4.28 grams, which unfortunately places the coinage in the middle of two different mithqals. Coin samples have not been tested for purity, so it is unclear which mithqal was intended. However, since the weight matches that of a 691 H gold issue of Gaykhatu, a comparison of the two issues is instructive. The later type has been analysed as 77–80 per cent pure, giving the coins a true value of approximately 18 carats on the 4.48-gram mithqal. Therefore, apparently, gold and silver coins operated on different mithqals. Rather than working within one mithqal in different proportions, as in the Islamic system, this practice used two mithqals; the heavier one for gold and the lighter one for silver. As the fist gold from Tabriz, the 676 H series may well have started the unique system. Unfortunately, the weight relationship between the two standards was very awkward to calculate, by either unit or mithqal; so the intrinsic value of gold to silver seems no longer to have been a factor of weight. Instead, function probably determined the value of gold. However, even if that were the case, the purpose of the gold is difficult to discern. One possibility, that this issue provided donation pieces, is untenable because it was struck at an unexceptional time in mid-reign. More likely, it was intended for external use, presumably in Jochid territory since it matched the normal mithqal and was double the normal unit division in the northern steppe. Therefore, the purpose of Tabriz's gold could well have been to meet the needs of foreign activity. If so, it was an adjunct to the regional silver policy, which seems to have also met steppe expectations or those of the Georgian middlemen. More firm evidence for such a policy emerges from 687 H onwards, by which time stronger trade patterns with the north had apparently developed.

Master Circle had made a good start, but momentum faltered after this issue. He had produced both the gold and copper sparsely and selectively, and Tabriz struck no more gold during Abaqa's reign. His commitment to the trimetallic policy seemed irresolute perhaps because there were problems in exchange values. Certainly, the diwan soon exerted its energy on a much more pressing need in its estimation. As a result, the experimental trimetallic programme came to a halt as no money in any metal was produced in 677 H for Tabriz.

HULAGUID TERRITORIES

Away from the capital, the various provinces also underwent re-organization in 676 H. The situation in Hulagu's territories was critical. The region was in some disarray, the whole chain of command in doubt and no firm policy in place. This was the time that the governor, 'Ata' Malik Juvayni and his brother, the wazir,

began to suffer accusations of embezzlement and collusion with the Egyptians. The Mamluk sultan, Baybars, invaded Rum in the spring of late 676 H and defeated the Mongol army. Abaqa, who was in Tabriz, quickly went to the area, regained it and ordered the land devastated from Qaysariya to Erzerum.[65] The wazir proved his loyalty and importance by re-establishing order in the area and then taking troops to subdue Daghistani tribes in the Darband area. However, his brother's province lost its cohesion. The accusations were strong enough to have Juvayni arrested twice later in 679 H. The strain prompted his death within two years at the very beginning of 682 H.[66]

As highlighted in Table 6.1, at the beginning of the re-organization in 676 H, al-Mawsil had resumed production. Still employing the *Abāqā Il-Khān* dies on silver, it also struck gold at the end of the year with the same legend, which was probably a special requirement in tandem with the Baghdad move, discussed below. As resilient as al-Mawsil was, it no longer managed any other mints. Instead, politics and the new policy made it phase out the old system and its dies for the new central Mongolian type.

With the new reform underway in Tabriz, Master Circle commanded the Baghdad supervisor to report to Tabriz with the revenue of the Hulaguid region. Juvayni's agent started his journey in the latter part of 676 H. Apparently, he ordered al-Mawsil to produce a special gold issue that he collected en route. Then, he instructed the Mardin mint master to join him in Jazira ibn ʿUmar. This place was the Baghdad official's last destination in the area as he deconstructed the entire former system. The Mardin master reopened the mint briefly and brought a reverses hub with him once again as in 671 H.[67] If he had been the same agent who had arrived from Mardin that time, he had been part of the Mardin team for at least six years. He now struck silver with Mardin's outdated master hub of *Hūlāgū Il-Khān al-Muʿaẓẓam*.[68] Two features that identify the coin as being struck from a Mardin hub were the similar decorations on *muʿaẓẓm*, specifically the diamond-shaped *ʿayn* that sat on top of the line and a star over the body of the *ẓāl*.[69] In the margin that had remained open on the hub, he placed a remarkable legend. The inscription precisely explained his situation. It stated *ḍarb-i Baghdād fī tumān bi-l-Jazīra ibn ʿUmar sana sitt wa sabaʿīn*/"The Baghdad mint in the district of Jazira ibn ʿUmar, year six and seventy".[70] Once the money had been issued, the entourage did not stay long. Nevertheless, it seems that the revenue of the Hulaguid territory was not completely in coin but in ingots or *balish*. It needed to reach Tabriz before the end of the accounting period for silver but did not manage to do so. When the Baghdadi group arrived, Tabriz had finished striking silver and was just concluding its gold production. Since the group was responsible for making its own coinage, it had to find dies. For the obverse, the master made a new die with calligraphic discrepancies and an awkward style. He seems to have been an administrator forced into the role of calligrapher at this critical stage. Fortunately, he did not need a reverse. For the latter, he managed to borrow the Tabriz die currently in use. As the normal silver dies seem to have already been returned to the treasury, all he could obtain was a gold one, which stated *arighu altan*. Therefore, this uniquely

odd silver issue appears to have been struck after the end of the regular silver minting period in Tabriz; but a gold die, still in use, was available for this special issue. The reason the die was still available was probably because gold was a new metal at Tabriz, requiring strict attention to every detail. This enterprising and reliable official continued to run the Mardin region once it reopened two years later in 678 H. The assessment of his role them is based on the stylistic similarities of the calligraphy in the two issues.

Up to this point, there is little evidence that regional revenue had been sent to Tabriz except about 672 H with the change in mithqal and use of Jaziran re-stamped coin. However, the wide remedy found at every mint, discussed earlier, shows that Tabriz reaped some revenue at least but did not directly administer the Hulaguid territories. However, this obvious example of revenue arriving at the capital indicates a turning point. In fact, the Tabriz mint did shut its doors after the gold production, an unusual occurrence, not minting at all in the next year of 677 H. Instead, the full diwan went back to Baghdad to straighten out the severe structural problems in the former Hulaguid region. As a result in 677 H, Baghdad issued both gold and copper as Tabriz had done the previous year. For copper, the one example known is very worn, only the *kalmia* is visible on one side and the mint and possible date on the other. Baghdad apparently also struck gold in 677 H, which used the same 676 H Mongolian gold type of Tabriz for both sides. The decorations varied from Tabriz, however, since Tabriz had three stars at the top of the reverse, which Baghdad lacked. Instead, this Baghdad issue had an arabesque on the right edge of the obverse, suggesting that Master Arabesque had been recalled. He apparently came directly from Tabriz with the hubs that he adjusted with his sign. If Baghdad issued coins as suspected with Mongolian inscriptions, it meant that the separate regional policy was finally terminated; and Tabriz incorporated the territory into its own programme. In early 678 H, the united plan was tested as the Tabriz and Baghdad agencies joined together for a full trimetallic production agenda. Tabriz issued copper[71] and silver[72] as Baghdad struck gold and copper. At this point, Master Circle entrusted Master Arabesque to once again lead the provincial programme. Once this situation was settled, the government expended energy in other regions in 678 H, those of Fars,[73] as described previously, al-Mawsil and then, in 679 H, Mardin.

In 678 H, the Jazira was still not connected directly with Tabriz but rather operated a similar policy. In the area governed by al-Mawsil, three mints balanced metallic production. al-Mawsil issued silver as al-Hilla struck gold borrowing Baghdad's old *Qā'ān/Pādi Shāh-i ʿĀlam, Il-Khān al-Aʿẓam/Ābāqā* master hubs; and Irbil and Sinjar made copper. As before in 673 H, the emergence of a different system was indicated by a change of city *tamghas*. Irbil had three different varieties of insignia as it moved from the hare to the falcon. Curiously, Sinjar's reverse had the current formula around the edge and a new pictorial field of peacocks. For the obverse, it did not have new dies or even its 673 H obverse one. Rather, it had to use a former silver one from 665 H. This issue exhibited not just the master hub for the centre, as usual, but the complete production die itself. The fully inscribed

local message around the edge stated the year of 665 H and the metal of *al-dirham*/ "silver", showing that the die had been safely stored for eleven years. Although the programme was successful, the region stopped the trimetallic policy after 678 H because of Tabriz's last reform stage.

For the region of Mardin, the remit was simple. Once again, the master who had turned calligrapher earlier at Tabriz seems to have first returned to Jazira ibn ʿUmar, which opened again later in 678 H. He obviously continued to have access to the Mardin storehouse because he had at least one former Mardin reverse that he matched with a former local obverse.[74] Moreover, the issue was at its former heavier weight as though he quickly retrieved old coin. His position improved substantially by the middle of 678 H since he was then able to lay claim to dies from the mint of al-Mawsil. It had recently closed earlier that year, so he finally acquired *Abāqā Il-Khān* hubs for Jazira ibn ʿUmar.[75] By the beginning of the next year, he had returned to Mardin. However, there he still had old dies that he had to use up; so he issued coins with *Hūlāgū Il-Khān* again. Mardin never struck coins that said Abaqa was the il-khan. Also in 679 H, Mardin had a series of half and third silver coins; and probably at the end of 679 H, it issued copper, all of which seem to have had local reasons for production. The situation was fragmenting to meet lower tax requirements and local exchange needs.

By the end of this period, the Hulaguid region stopped minting with the exception of the two local copper issues, and Tabriz never again issued all three metals at the same time. A series of copper or gold in the future would come forth only to commemorate an event, often gold at the beginning of a new reign or in the three-year height of Ghazan's reform. Nevertheless, the lessons learned from this activity were seared into the performance record of the administration. Distributing the production of various metals to separate sites had been successful as future events would prove. Nevertheless, the complicated Hulaguid programme closed, and the region was abandoned.

Weight reforms, 678 H

HULAGUID TERRITORIES

Although the Jazira was closed after 678 H, the region had probably joined the new Tabriz weight system that year. Few coins are available for study, and their remedy is wide. Nevertheless, the tendency indicates that coinage was reduced and could have fit the new Tabriz weight. Tabriz had imposed its will in various ways on the Hulaguid territories, but the region needed an even stronger helping hand, which it did not receive, and collapsed. First, Baghdad had been left in shreds; then al-Mawsil and finally Mardin closed their doors.

TABRIZ

The third stage of Abaqa's great reforms in Tabriz occurred in 678 H once Master Circle returned to the capital. His diwan had earlier enhanced financial markets

and created liquidity by trimetallism. Since that programme had major problems, he planned to achieve the same aim with a different policy. Therefore, in 678 H, currency returned to the pattern that Tabriz knew best; it consisted of only the single metal of silver. This time, however, monometallism did not mean a revival of the poll tax with its restriction of liquidity because of two other actions. One was a change in weight; the other was an expansion of mints

(1) Unit and mithqal During the entire period from the start of the programme in 671 H to this point, the diwan had maintained the 4.125-gram mithqal. However, in 678 H, it switched to a different one and lowered the single unit substantially from 2.75 to 2.43 grams. It was a strange weight that defied previous parameters. The most likely reason for it was that Tabriz changed to the 4.48-gram mithqal employed for gold and struck the issue at 13 carats. The division of 13 carats was a radical move for Tabriz,[76] and ultimately the 4.48-gram mithqal was not acceptable to the regime. One indication of its problematic status is that 2.43 grams was defined early in the next century only in terms of, by then, the normal mithqal of 4.24 grams; i.e. as a little less than $3^1/_2$ *dāng*s. Adopting a new mithqal and then dividing it into an odd rather than an even portion for the main coin probably created a situation so revolutionary that financial affairs became chaotic. A crisis would have occurred because one of the basic tenets of the monetary system was in jeopardy, namely Tabriz traditionally had followed the body politic structure by having the highest weight in the realm. However, the new standard put its coin below that of any other mint. In addition, the reduction severely affected trimetallism, which could no longer function in the same manner. In particular, a lower weight of the silver unit readjusted the value of one metal to another in the regulated coins of the Mongols. If no allowance were made for this in accounts, a financial catastrophe in both taxation records and the market place would ensue. Apparently being aware of these possibilities and in order to make the transition, Tabriz closed down the entire empire except the Jazira by mid-677 H. The expectation was, presumably, that the mints would reopen later at the new Tabriz weight, but none ever did. Thus, in 678 H, Tabriz recalibrated its weights and accounting system to launch the reform. In essence, the change affected only Tabriz. The innovation lasted for almost five years from the latter part of 678 H to the middle of 683 H during an uneasy political time for the empire.

(2) Market price of metal The outward appearance of the new coinage did not give a visual signal through geometric shapes to indicate that the coin weighed a certain proportion of the whole. The Mongol bureaucracy now dropped that policy because it had transformed the method of calculation to one with more flexibility. In essence, the diwan had revolutionized monetary transactions by relying on the precise unit weight rather than a wide tolerance. The unit weight was not just a better standard for taxation, either *tamgha* or *qubchir*, but it also made Mongol money a true market mechanism. First, a precise measurement permitted the weight to be altered without losing the relative value of the coin. Second, since both gold

and silver were now at the same mithqal and, in 698 H, at the same unit, market forces determined metallic relationships, i.e. the price of precious metals. This was an extraordinary advance in exchange mechanisms.

(3) Quality control The practical matter of quality control also underwent revision. At first, not only did the Tabriz coinage continue to have a wide remedy but the tolerance was even larger than the previous one from 671–6 H.[77] The wide remedy once again allowed some recycling of all former coins. Nevertheless, since the new standard was unlike any other that had been used and was substantially below all current ones, the mint would have lost a great deal of bullion if it had continued to accept coins by tale. Therefore, once old coins had been accepted in payment, the mint melted most of them down to furnish silver for new coins. The process of recycling old stock took time but, over this period, the coinage was on its way to having much tighter remedies and adopting advanced methods of quality control. The change can best be detected from the distribution curves of coin weights. The one for this series had the same shape as the straight-sided Hexagon type from 650–68 H,[78] a slight right skew from the peak of the curve. This form indicates that the production and testing techniques were the same for both periods. Nevertheless, the two curves exhibit several significant differences. In some of the Hexagon coinage periods, there were sharp edges; but this Mongolian coinage from 678–83 H had none and a notable increase in the height of the peak.[79] That change meant weighers no longer discarded coins above or below a certain limit but worked to the actual standard. The graph shows that, for the first time, the weighers were concerned with grading a coin by its closeness to a central weight rather than by not exceeding the limits of its permitted range. Having a single point was an important improvement in quality control: in particular, judging output by a central weight required more time and/or better equipment than did using a range between two extremes. The Mongols wanted precision. Therefore, the reform gave new prominence to the unit weight, that is to a single figure.

(4) Mathematical advances As important as a precise weight was, the most outstanding feature of the 678 H reduction was that, for the first time, Mongol money from the capital was not struck to a rational fraction or basic proportion of a mithqal but followed an advanced mathematical concept. By adopting this theory, the Mongols challenged the accounting system of the time. Until this reform, major ratios of the mithqal had been the normal basis of coinage systems, in particular the whole (1), three-quarters ($^3/_4$), seven-tenths ($^7/_{10}$) and two-thirds ($^2/_3$) for the single unit of currency. This was a simple system; yet there was another set of subdivisions, that of carats or *qirāṭs*, the word coming from the Arabic root *qrṭ* meaning "to cut into small pieces". The first part of the system, the mithqal, dealt with reality while the latter part, the carat, was theoretical even though it was grounded on the actual weights of seeds. Of course, the fecundity of one region rarely matched that of another; so local weight discrepancies existed. Moreover, the carat theory operated on base 12, which was difficult to adjust to areas that

used base 10, such as the steppe. The complexity of the *qirāṭ* system generally meant that in practice it was totally ignored.

Therefore, although the 24 units of the carat system had long existed theoretically, it was only once they were put together that they became useful. It took four carats to build the first larger unit, the *dāng*,[80] six of which (or 24 carats) made a mithqal.[81] Nevertheless, money had not been struck on the basis of those units; i.e. on their simple arithmetic accretions or decretions. Rather, it had been struck on large practical fractions, whatever the mithqal was. From 678 H on, however, individual carats became the foundation of the Mongol standard. This change is apparent from a comparison of the unit weight standard of each type of Tabriz coinage to the mithqal of choice before and after this date. It shows that there is a different pattern of division. The new method considered that each part of the whole existed separately from it, as a single item building the corporate structure. Nevertheless, the new procedure did not break completely with the past: previously, as stated, the complete weight had been divided into whole fractions. Now each of the six *dāngs* that made a mithqal was again simply partitioned into the bulk fractions, the half being the easiest to manage technically. This new procedure is the only way to understand the Mongol weight system after this date: changes were consistently made to the coinage by half a *dāng*. The weight reduction of 678 H and all subsequent Mongol reductions,[82] consisted of half a *dāng* or two carats from the previous coinage. Tabriz was not adopting a completely new system, however. It had already observed local reductions in Gurjistan in 653 and 660 H as the unit had decreased from 17 to 15 and then to 13 carats. During the upward and downward revisions of the money of Tiflis, the city had changed mithqals; and apparently Tabriz thought it could do so as well. This background suggests again strong Georgian influence in the financial administration at this time. With such successful trials in Tiflis before this reform, Tabriz now accepted the policy wholeheartedly.

The impetus for the new approach had come from developments in mathematics for dealing with the basic problem of rational and irrational ratios. The fractions $^3/_4$ or $^{18}/_{24}$, $^7/_{10}$ or $^{17}/_{24}$, and $^2/_3$ or $^{16}/_{24}$ were rational, but $^{13}/_{24}$ was irrational. Previously, a ratio had been expressed as a continued fraction. In a rational ratio, the fraction terminates, as in the following example supplied by E. S. Kennedy:

$$43:19 = 2 + \cfrac{1}{3 + \cfrac{1}{1 + {}^1/_4}}.$$

In an irrational ratio, the fraction continues, as below. Only an approximation to a rational number can be achieved by stopping at some arbitrary point.

$$2:1 = 1 + \cfrac{1}{2 + \cfrac{1}{2 + \cfrac{1}{2 + \ldots}}}$$[83]

Nevertheless, a real number could be conceived by manipulating some concepts. Such an advance had been made by mathematicians computing trigonometric tables, which had consistently provided irrational ratios. The theoreticians had found a solution by approximating a rational ratio. ʿUmar Khayyam (fl. 500 H/1100 AD) had begun to develop this theory of ratios or proportions: "He hypothesized a magnitude whose ratio to a unit was to be regarded as completely abstract 'connected to numbers (but) not an absolute, genuine number' (*taʿallaqabi 'l-ʿadad, lā ʿadadan muṭlaqanh aqiqiyyan*)."[84] In pre-Saljuq times, a tendency had already existed to consider these ratios as numbers, e.g. in al-Biruni's *al-Qānūn al-Masʿūdī*; but the practice had come into being and gained more common use only in the seventh century hijra. Leading mathematicians, such as Nasir al-Din Tusi, held these infinite sets to be finite numbers.[85] Nasir al-Din Tusi's knowledge of and influence on monetary affairs during Hulagu's reign has been suggested earlier; and, in this matter, his powerful mind may well have made another contribution to the practical matter of accounting. It was now only six years after his death, so his work on this abstract concept of converting irrational ratios could easily have been applied to money. It allowed the mithqal to be divided into 24 actual sections that could be manipulated since the carats were now viewed as real as well as theoretical. Financial administrators, calculating by the individual existence of the formative units rather than by large fractions of the whole, could henceforth systematically lower the coinage. Such management was in stark contrast to previous coinages, which had gone through abrupt and awkward revisions. As a result, controlled reductions in the Middle East were a phenomenon that first occurred in Mongol coinage. Unfortunately, many numismatists assume a static monetary system rather than a developing one so that, without understanding this background, they have seen the Mongol period as one of autocratic wilfulness, in which coinage was massaged to increase the dynasty's wealth. On the contrary, money operated according to strict regulations under highly sophisticated and fully explored tenets.

Mint expansion, 679 H

The weight reduction with all its concordant attributes needed an enlargement of the number of mints if the reform were to be successful. In 679 H, the diwan began such a programme, which actually followed the footsteps of the tentative and largely unsuccessful attempt of 672 H. In both cases, the expansion was a distinct departure from previous practice. A brief review of that practice recalls that, from 650–6 H, Tabriz had been the sole Mongol mint. Then after the flurry of conquest activity, in 658 H it took ʿIraq-i ʿArab under its wing but kept separate policies. Continuing this pattern, it did the same in 660 H for the Jazira, Khurasan and Gurjistan; each of these areas had been a separate department in the administration with different types, weights, metals and production schedules. These variations had made it difficult to calculate the true state of the realm's finances, particularly in determining taxes and trade profits. Having different

departments with slightly different agendas meant that the government did not have a unified realm. It was determined now to rectify this situation.

As a result, the diwan's main effort in 679 H was to conclude the consolidation of all regions under Tabriz's direct supervision and make them use its accounting system. Once Tabriz had decided on the basic structure it wanted, only its type and weight could exist in the entire empire. The fundamental broadening of Tabriz's role gave a different meaning henceforth to pauses in its production. Before 679 H, the mint of Tabriz had stopped in order to allow its authorities physically to move to an area in order to supervise the proper inauguration of a new mint or important regional change. Hereafter, any hiatus at Tabriz signalled a major reform in its own currency rather than a move to the provinces. Recognition of this shift of emphasis is of tantamount importance since its money, unequivocally, had become the empire's money. Other mints were secondary, and most were tightly controlled from Tabriz. When the capital had its house in order, the empire was in order; when Tabriz changed direction or lost its way, the empire floundered along behind it. Therefore, the final step of Abaqa's massive reform programme was regional expansion. It did not go smoothly and had to develop first according to local conditions. The extension of mints started with ʿIraq-i ʿAjam, then Gurjistan and finally Khurasan. Unexpectedly, the complicated Hulaguid territory received no attention whatsoever in this enterprise.

ʿIRAQ-I ʿAJAM

The precedent of a direct link between Tabriz and ʿIraq-i ʿAjam was re-enforced and even elaborated in 679 H. An early tie between the two had been formed in 655 H as Hulagu had struck the Tabriz type in Hamadhan. Further, in 672 H, both Hamadhan and Kashan had used the exact type of Tabriz except for putting their own mint name in the margin. Now in 679 H, they continued the same alliance by perhaps being the first mints to use the new Tabriz type. Kashan[86] may have led the way followed by the region of Hamadhan.[87] The excellent start was not followed through, unfortunately; once again, ʿIraq-i ʿAjam produced for only one year. Part of the explanation probably lies in the fact that it did not use the same mithqal or division for the unit coin as Tabriz did. Instead, the region minted at 2.475 grams or 14 carats of the 4.24-gram mithqal,[88] keeping Tabriz's old mithqal. In fact, Hamadhan had retained that mithqal in 672 H when Kashan had left it. At this point, Kashan returned to it so that both cities were once again on level ground. It meant that traders in Kashan kept their accounts on the same carats but adjusted prices according to the revived mithqal. This retention of the former mithqal was not an oversight; rather, this coinage kept the mithqal alive. In four years, Tabriz returned to it. In spite of this mithqal discrepancy with Tabriz, Master Circle had begun in earnest the monetization of ʿIraq-i ʿAjam and had established a broad regional structure.

GURJISTAN

The advance of the reform was plodding and rather unremarkable in the centre, but the position of Gurjistan within the realm was perched on the brink of decisive

change. The region was controlled by foreign Muslims, who were about to be replaced. Earlier in 678 H, Tiflis had minted only in Muharram,[89] an important point in the Muslim calendar as the first month of the year. It should have been the last of Gurjistan's special coinage with the curved lozenge on the obverse and the flat-bottomed hexagon on the reverse as the city placed its dies in storage, ready to implement the new reform. Unfortunately, it did not receive new dies. Waiting in vain for an agent to arrive, Tiflis finally had to strike the flat-bottomed hexagon twice in 680 H. The first time was in Rabiʿ I,[90] the third month of the year, presumably for the tax of the previous year. Five months later, it minted in Shaʿban,[91] apparently for the current tax year. The weights were random, suggesting that old coin was restamped.

KHURASAN

The most challenging area was Khurasan. It required the expert attention of Master Arabesque, who travelled there from Baghdad. His task required some careful, step-by-step preparation rather than an immediate imposition of the new policy. Therefore, first, he needed to establish a foundation for the province's tax register, which he apparently based on a census. From that, he assessed the *qubchur*, using the same Hexagon type for payment as the tax had employed in Tabriz. He registered six key areas, suggesting that not only had the places revived economically but, of equal significance, held strategic importance. The line of Hexagon mints formed a protective belt facing the troublesome Chaghadaids. The sites were Marw, Isfara'in, Jurjan, Astarabad, Tus and Naysabur. Isfara'in, Astarabad and Naysabur were distinct regional centres, now re-vitalizing previous minting rights as capitals of their respective provinces in Khurasan and Mazandaran/Dhihistan. With the use of the Tabriz die, however out-dated initially, these two regions showed they had lost their local privileges and no longer paid tribute or provided only in-kind products. They, too, were clearly being monetized and coming under Tabriz's financial administration.

The furthest possible point of Toluid terrain in the direction of the Chaghadaids was Marw, so it was to that city that the new administration first headed. Master Arabesque's production strategy was simple: he saved time and expense by employing the useless Tabriz straight-sided V-bottomed Hexagon reverse, which he brought directly from Tabriz. Among the dies was a venerable reverse containing the daisy, dating from 661–5 H.[92] He began the *qubchir* and distinctly put his mark on the first silver obverse of Marw with an arabesque over the lone *Muḥammad*.[93] After his success in Marw, Master Arabesque and his company proceeded west to Isfara'in. On its silver, his diwan continued to use the same Tabriz reverse dies but soon added one dot to each of the outside spaces.[94] From there, the diwan continued its westward trail and arrived in Jurjan, which struck silver for the holiday of 10 Shaʿban (December) in 679 H.[95] Initially, he used the Isfara'in reverse dies on hand with one dot;[96] and, similarly, he began with the Marw obverse, both to be detailed shortly. Then new obverses were made with no

arabesque. At this point, Tiflis sent a stock of its out-dated flat-bottomed Hexagon dies from 672 and 673 H with the inscription of *Qāʾān al-ʿĀdil al-Aʿẓam* to supplement the apparently dwindling supply of Tabriz's old V-bottomed Hexagon dies. As before, Master Arabesque also adapted the Tiflis Hexagon reverses by adding three dots to differentiate the mint as Jurjan. After the festivities, the diwan quickly moved further west to Astarabad, in which it then had available only the Tiflis Hexagon.[97] The Caspian Sea seems to have been the end of the territorial line, so the diwan turned back to the east and arrived at Tus. There, Master Arabesque continued to use up the Tiflis stock on its silver.[98] Finally, the new Tabriz reverse arrived in the region. Using it, he then issued a curious set of approximately three obverse silver types. On the first one, the obverse had a lion below a marginal *shahada* that ended with an arabesque.[99] There was no minting formula. The second type replaced the arabesque with the mint.[100] The final type had a sun face on the obverse.[101] None had a date, but the reverse unequivocally places the issues at this time because the inscription changed to the Mongolian legend. Moreover, the new reverse type suggests that the diwan switched to the *tamgha* tax once it was in Tus. The next year in 680 H, Naysabur had a silver issue with the long *shahada* on the obverse and, on the reverse, the Tabriz style with five lines of Uighur.[102] Within a year it seems, Khurasan had been enrolled in the new tax system.

Although the silver started by using old reverse dies from the storehouses of Tabriz and Tiflis, the mints did need new obverses, reflecting the same situation encountered by the Mardin master in Jazira ibn ʿUmar and Tabriz. As a model, Master Arabesque adopted the Tabriz linear square inside a linear circle for all mints except Tus. That city showed its status by first enhancing the cartouche to a delicate quatrefoil and then using images. Otherwise, the remaining cartouches were the same, but each legend was distinct. As a result, the legend alone usually identified the mint, the visual aspect reinforcing the written name in the margin. Marw, Astarabad and Tus had the short *shahada* of *Lā ilāh illā Āllāh, Muḥammad rasūl Āllāh* displayed in different line divisions. Marw stretched out *Muḥammad*, placing it alone on the central line. The twisting spirals over that word in the middle of the field indicated that Master Arabesque was leading the diwan. Since his *tamgha* was in the centre of the entire field, not in *ilāh*, he kept the method of identification from his tenure at Tabriz. Astarabad added the ʿAlid formula but, otherwise, used the Tabriz inscription. Only Tus completely followed the Tabriz legend, which eventually matched its use of the current Tabriz reverse.

On the other hand, Isfara'in, Jurjan and Naysabur had modified renditions of the longer Tabriz 671 H inscription. Isfara'in at first used the Marw obverse, as it had done with the reverse, then created its own obverse dies. Isfara'in included *waḥdahu lā sharīk lahu* as did Naysabur with the mint at the top while Jurjan included only *ṣallā Āllāhu ʿalayhi*, as already noted. One of Isfara'in's obverses placed the Mongolian title of *khaqan* in Uighur script in the top section above the square. It was followed by the mint in the left and right sections and at the bottom by a new symbol of a stylized court pavilion[103] flanked by wispy S-shaped clouds.[104]

Finally, Marw, Isfara'in and Astarabad followed the Zabulistani practice of not providing a date. However, Jurjan, Tus and Naysabur did have dates so that a comparative analysis of the dies has indicated the years and the sequence of minting during Abaqa's monetization of Khurasan.

The above analysis shows a pattern only in the use of Tabriz's former reverses. Otherwise the obverses vary within general guidelines. Therefore, the diwan seems to have had an oral directive about the obverse rather than a firm drawing or even a master hub from which to make striking dies. As a result, Master Arabesque's major concern was apparently to set up the new structure of taxation rather than to decide the delicate points of design. To this main end, he established all six mints on the unit weight of two-thirds, that is 16 carats or 2.75 grams of the traditional Khurasani mithqal of 4.125 grams. That goal made the reverse type at first chronologically twice removed from Tabriz's current one and the mithqal and its fraction once removed. However, the hexagon and square designs provided the same message in Khurasan as they had in Tabriz, namely that the coin was two-thirds of the mithqal and its purpose was to service the poll tax. Once his basis was established, he managed to convert to the trade tax with remarkable speed.

This revenue extension exercise in Khurasan required major political organization that did not or could not rely on any local apparatus, yet the progression of die usage suggests that Master Arabesque was following the precedent of Kirgiz. Both had been given authority but little actual technical support from the centre. Therefore, they had to manage taxation on their own and, if they brought in revenue from a new source, could conceivably have been rewarded with a governorship or a power base. Indeed, the precise identity of Master Arabesque, who probably originally came from Gurjistan, may come to light as a later governor of the province. Kirgiz had started his administration from almost nothing; but, fortunately, Master Arabesque had long years of Mongol suzerainty on which to draw. Still, the diwan chief set off with no current dies and but a skeleton production crew. He had only the power to requisition useless outdated dies from the treasuries of both Tabriz and Tiflis, power he seemed to have wielded most cleverly because he was exceedingly effective in his search. He not only managed to obtain pieces twenty years old but also lay immediate claim to dies just cancelled. Nevertheless, he was not able to retrieve any obverse dies since they had longer use. In spite of his resourcefulness, the backing from the capital for the work he had to accomplish was so limited that, it seems, he could bring only a handful of trusted mint workers with him. Otherwise, he would not have found it necessary to preserve the energy of the engraver for only new obverse dies and slight alterations of some reverse ones. Finally, only when the team was at the last two mints, and had proved itself and perhaps was able to pay, did real backing come from Tabriz with a current reverse die. In short, Abaqa's final perception of his realm meant that there was an immediate necessity to tap the wealth of Khurasan, to devote effort to its development and prevent any resurgent Chaghadaid inroads. As usual, politics and economics were partners, sometimes tightly bound together.

The diwan had succeeded against some difficult conditions and seems to have located its headquarters at Naysabur, in which it was probably operating at the time of Abaqa's death. Master Arabesque apparently remained there as an act of mourning and waited for further instructions. Juvayni reported that, in the early days of the empire at the death of a khan, all the roads were closed; and no one was allowed to move except royal messengers.[105] It is probable that the wise practice still prevailed. Although resilient and determined, the expansion in Khurasan came to a close soon after and indicated the end of Abaqa's great reform.

Tabriz mint organization and review

In spite of radical policy reforms during Abaqa's reign, the structure of the Tabriz mint continued to function along the same lines as those established by Hulagu in 658 H. One person was in charge, but his position was sensitive to or reflected significant shifts in taxation policy or political leader. A new policy sometimes meant that he was replaced. At other times, he had enormous responsibility and even gained a partner who took charge of the regions. The signal of the person at the top continued to be a small decorative mark or personal *tamgha* on the coinage. It appeared, disappeared and sometimes returned at crucial moments, indicating the importance of the position. However, when the mark changed, the individual was presumably assigned to other posts, which could be totally unconnected to finance.[106]

At the beginning of this structure in the straight-sided Hexagon series, the mark of the mint master was a symbol in the centre of the obverse field over the *dāl* of *Muḥammad*. These people were Master Star from 658–61 H, Master Daisy from 661–5 H and Master Trident from 665–8 H. Sometimes a mark also appeared on the reverse. The first three supervisors were discussed in the last chapter. With the 671–4 H Curved Hexagon coinage, marks appeared on both sides of the coin at cardinal points, at the top on the reverse and at the top, right and left edges on the obverse. Then in the Mongolian coinage of 674 H, the mark on the obverse was lowered to float between the two ascenders of *ilāh* on the top line. The new position obtained until marks were discontinued in Ghazan's reform of 696 H. In both periods, the main locations were centred above or in the upper line. Any other mark that appeared on the reverse probably represented a special official responsible for a particular policy or region. When a mark appeared on the reverse, it did not move but remained at the right edge of the field. This practice was abandoned at the same time as the obverse *tamgha*. In the period of the Curved Hexagon and early Mongolian script coinages, there were three major officials; Master Arabesque from 671–4 H and again in a regional role from 678–81 H, Master Star from 674–6 H and Master Circle from 676–81 H.

To briefly review the events covered in this chapter in light of the directors, it can be observed that Master Arabesque oversaw the Curved Hexagon reforms, in which he made the first attempts to bring together the Hulaguid and original imperial territories. These programmes reflected the intentions of Arghun Aqa

and Abaqa to eliminate the differences between the two regions; in short, it was the beginning of the polity to make Greater Iran the empire that historians label the Il-Khanate. The slight change of Tabriz's inscriptions was one indication of an amalgamation of the provinces. Another indication was a weight reduction in Tabriz matched by one in the Jazira and ʿIraq-i ʿAjam as they took the Gurjistani unit standard. Master Arabesque was replaced in 674 H as fuller Mongolian identity emerged with the Uighur inscription at Tabriz. Later, from 677 H, he was re-appointed for the special task of incorporating Baghdad, which failed, and Greater Khurasan, which succeeded, into a centralised government. He apparently conducted the first census in Khurasan in order to impose the poll tax. Since he had been responsible for the first weight reduction and expansion of the Tabriz type from 671–4 H, he was well qualified for the 678–80 H effort to set in motion another new weight and mint policy, this time for the provinces.

In 674 H, at the point the distinctive curl disappeared for a single star in *ilāh*, a new person had taken over the position of mint master in Tabriz. Nothing appeared on the reverse at first, but in the next year another star appeared at the right of the field. Therefore, the same symbol on both sides seems to have signalled that one mint master held office from the end of 674 H to near the close of 676 H, dates that involved the regional organization of the trimetallic system between Tabriz and al-Mawsil. Master Star's qualifications for the job were impeccable: he had previously established a similar organization under Hulagu in the conquered provinces from 658–61 H. In that period thirteen years earlier, he had set up Hulagu's new mint administration in Tabriz, being the first central director as well as general supervisor of the conquered regions. As a powerful member of the original entourage, he had the status that could push through the start of a new system. However, he did not have a new strategy for the evolving times and kept the realm divided. ʿIraq-i ʿArab was subsequently closed, and local agents in al-Mawsil and Mardin returned to monometallic activity.

As policy changed at the end of 676 H and the Baghdadi branch brought its revenue to Tabriz, the stars completely disappeared from the dies. They were replaced by a circle or pellet, which lasted through 681 H. Master Circle supervised Tabriz for almost five years, during which he concluded the revolution by a weight recalibration and mint expansion. With the crumbling situation in the Hulaguid territories, he personally assumed control; and then, in 677 H, he gave Master Arabesque oversight of other cities. After Abaqa's death, he struggled valiantly to keep the mint operating and the reforms alive. The last two individuals resigned their joint appointments in 681 H with the installation of a new ruler's administration. All the directors had challenging tasks and a goal of centralizing finances and power in the capital. External threats and internal regional dichotomies often sparked policy changes, but the long-term direction of financial development was clear.

The expansion of the number of mints and Tabriz's direct control over them had only begun when all progress ceased because of Abaqa's death in 680 H. The khan died in Dhu al-Hujja of 680 H or April 1282 AD, ten days before the new year. At the end of his reign, the chief mints of the west, those of Baghdad, al-

Mawsil and Mardin, had been closed. In short, activity in the west had been suspended as Masters Arabesque and Circle focused on integrating the other regions of the larger empire.[107] The programme started in the centre with ʿIraq-i ʿAjam as the cities of Hamadhan, Nihawand and Kashan struck Tabriz's new type with the Mongolian inscription, not with their own style. Although the region had a promising start, it minted only in 679 H. However, since ʿIraq-i ʿAjam struck at 14 carats of the original Tabriz mithqal of 4.24 grams, it was not yet completely in step with Tabriz. Therefore, the reform had moved forward only part way. Further to the east, the diwan finally brought Khurasan into the Tabriz network; but the province used the 4.125-gram mithqal at 16 carats. In Tabriz, itself, the new heavy 4.48-gram mithqal, which was minted at 13 carats, gave the capital the lightest coin in the realm, thereby contradicting the theory underpinning the monetary system. The discrepancy of standards was a most unusual occurrence in the development of the subsequent coinage, putting the silver unit into an extremely awkward position. In addition to that problem, Tabriz still had no universal *sikka*/ "stamp" or coin design, weight or trimetallic system. In view of preceding financial events and those to come, the empire was at a critical point in its monetary development. It was certainly not time for the reform to halt or the khan to die.

Over his sixteen-year reign, Abaqa had issued coinages that further integrated his father's conquests into the third imperial province; and, during the civil war at the beginning of Khubilai's reign, he had retained that province for the Toluid branch of the descendants of Chingiz Khan. However, during the creeping division of the Mongol Empire into the four main *uluses*, the imperial taxation system had collapsed. Abaqa had found it necessary, after the joint challenge in Khurasan of the Ogedaids and Chaghadaids in late 667 H, to cancel the collection and payment of the imperial poll tax from Tabriz. He had abrogated the rights and income of the *tamma* system and claimed direct obedience from all contingents in his territory. This change meant converting the financial system to rely on the trade or *tamgha* tax. Theoretically, this was the levy that gave the Toluids local solvency. His model was the practice in Hulagu's conquered territory. As a result, for ten years after 668 H, a struggle ensued to accommodate the Islamic system used for the trade tax to Mongol needs and administrative structures. The local system's stress on trimetallic currency, a plethora of mints and combinations of titles and names confronted the much simpler Mongol precepts. The standard bearer of one was al-Mawsil, of the other Tabriz. In contrast to the Islamic model, the leaner Mongol practice had heretofore required that the Tabriz reverse inscriptions faithfully reflect the *yasa* of Chingiz Khan. It was only as ties with the imperial khan had weakened and the Mongol cause became disjointed that the tendency to need a stronger Mongol identity had arisen. Hence, officials revived symbols of conquest and power. In 671 H, the reverse inscription reverted to an earlier eastern style while, later in 674 H, Tabriz went further to adopt the Uighur script. Finally in 679 H, the Tabriz coinage system began to reassert Mongol ideals throughout the realm.

The strength to effect this political statement *vis-à-vis* other Mongol groups on the steppe and indigenous populations in Greater Iran came from a successful new

approach to the trade tax. That technique was an accounting system based on an accretional weight of a single metal. To enforce it, the diwan had required strong monetary unification controlled from a single point, Tabriz. The reform brought a change in calculation, new ways to pay tax and an expanded revenue base, all of which Masters Circle and Arabesque were beginning to implement in full at Abaqa's death.

Notes

1 *Khubilai* means "the copy" as well as "the transformation" or "change".
2 Barthold, 491.
3 Davidovitch, 32.
4 Barthold, 492.
5 *Ibid.*
6 *Ibid.*
7 Davidovitch, Group 7, pp. 13 and 39.
8 Barthold, 492.
9 Barthold wrote that "each of the princes was to content himself with those 'thousands' and 'workshops' in Bukhara and Samarqand which were allotted to him", 493.
10 Allsen states that "to generate the revenues needed for this contest, the two princes charged Mas'ud Bag with the task of restoring, once again, the crippled economy of Central Asia. In order to facilitate the latter's work, the princes undertook not to enter any city, pledging to remain in the steppe until victory was achieved. ... Most of his plans were delayed until the late 1270s due to incursions of the Persian Mongols"; Allsen, "Mas'ud Bag", 129. His interpretation of these events is slightly different from this analysis because he ignores the difference between the areas under imperial management and those under *ulus* control. Moreover, the arrangement had been the normal practice since Ogedai.
11 Boyle, "Il-Khans", 356. Boyle states that the visit happened sometime between the end of 666 and the end of 668 H; since the *quriltai* took place in late 667 H, it seems that the trip occurred in early 668 H.
12 Mongol rule in China reflected the same tendency with an inordinate number of bureaucratic levels, more than in any previous dynasty or the future Ming one; Endicott-West, 596.
13 Morgan, *Mongols*, 95, discussing the Qaraunas of Afghanistan after Jean Aubin, "L'Ehtnogenises des Qaramins", *Turnica* 1 (1969), 65–94.
14 For the etymology of the word, see Donald Ostrowski, "The Tamma and the dual administrative structure of the Mongol empire", *Bulletin of the School of Oriental and African Studies* 61 (1990), 262–77.
15 Boyle, "Il-Khans", 357.
16 *Ibid.*
17 Allsen, "Mas'ud Bag", 130.
18 Boyle, "Il-Khans", 358.
19 *Ibid.*, 360. Also Michael Biran, "The Battle of Herat (1240): A case of Inner Mongol Warfare", *Warfare in Inner Asian History (500–1800)*, N. D. Cosmo, ed. (Leiden, 2002), 175–220.
20 Barthold, 493.
21 Davidovitch lists dates and mints for this period, tables on pp. 54 and 75, some types of which are described in the first chapter. Also consult the mint in Mayer.
22 Derived from Philip Remler, "New Light on Economic History from Ilkhanid Accounting Manuals", *Studia Iranica* XIV (1985), 157–77; 170.

23 Even before this date, Tus was the city from which he had re-established his control over the finances of Adharbayjan after Sharaf al-Din's death in 643 H.
24 The steppe calendar was modified from the Chinese one that divided time into cycles of twelve years. Often called the Animal Calendar, it was essentially a lunar system of short months. However, it was intercalated with the solar calendar by adding another month periodically; Charles Melville, "The Chinese–Uighur Animal Calendar in Persian Historiography of the Mongol Period", *Iran* XXXII (1994), 83–98. It would seem, therefore, that using the steppe calendar for taxation collections would not make any difference. Nevertheless, Melville points out a number of problems in recorded equivalencies between *hijra* and Uighur calendar dates. Further, it is quite curious that the Mongol New Year is given as corresponding with the Chinese one. Melville comments that the Uighurs in the ninth century AD used the spring equinox as their starting point. Today, the Mongols use a system mid-way between the Chinese and Uighur one. The new year or Tsagaan Sar is considered the beginning of spring but occurs one month after the Chinese New Year or usually in late February. It is unknown when this shift occurred, but part of the explanation may arise in the regression and progression of the dates according to Melville's chart. There seems to be a three-year cycle consisting of 11 days backward, another 11 days backward and then 19 days forward. This occurs three times except that in the last cycle, the middle year has only 10 days backwards: −11/−11/+19; −11/−11/+19; −11/−10/+19. Therefore, every nine years, one day is lost Therefore, the Mongols seem to have manipulated the Chinese system to bring the steppe rule-of-three to the foreground. There is no doubt that calculations were accurate; however, modern scholars still have much to decipher about the Mongol calendar.
25 *Ibid.*, 34.
26 Oktay Aslanapa, *Turkish art and architecture* (London, 1971), 133–4. For an analysis of patrons, stylistic influences including eastern Christian and Iranian ones, and comparative building activity, see Barbara Brend, "The patronage of Fahr ad-Din 'Ali ibn al-Husain and the work of Kaluk ibn 'Abd Allah in the development of the decoration of portals in thirteenth century Anatolia", *Kunst des Orients* X1/2 (1975), 160–85.
27 Boyle, "Il-Khans", 362.
28 Their status as the strongest mints is measured by several factors including duration of activity and volume of extant output. Moreover, they also had a leadership role in inaugurating and implementing policy changes in the area throughout the period.
29 British Museum 1969.5.12.15; 2.86 grams.
30 In 666 H, the Baghdad arrangement changed; *Allāh* was not alone but came at the end of the first line, a pattern followed by all subsequent issues of the *Pād-i Shāh Il-Khān* type.
31 This series stated only *duriba b'il-Jazīra* without *ibn 'Umar*. Two of the coins known have a hole and the weight of the third was not available. Therefore, the standard is unknown.
32 Ashmolean Museum 57; 2.48 grams, with hole. This feature appeared on some Mardin coins originally in 670 H.
33 The Hexagon type was briefly issued in 670 H, probably late in the year. American Numismatic Society 22.216.18; 2.78 grams.
34 Ashmolean Museum 83; 1.96 grams, and 84; 2.56 grams.
35 American Numismatic Society 36.32.1; 0.62 grams.
36 This statement does not include Hulagu's ephemeral conquest coinage of Baghdad, which was basically a continuation of the 'Abbasid system. Petty currency was always rare. Initially, it was only in copper, but during the reign of Arghun Khan half and quarter silver coins emerged. Small demonstrations of silver usually signalled critical events.

37 Ashmolean Museum 72; 2.87 grams. The month is inscribed.
38 The date of 672 H on a silver coin is reported by J. M. Smith in the Bank Sepah collection, no number; 2.71 grams; but it cannot be confirmed. Otherwise, only nine coins from Tabriz covering the period between 671 and 674 H were located for this study.
39 Steve Album, private collection; 2.81 grams.
40 British Museum 1969.5.12.14; 2.82 grams.
41 Steve Album, private collection; 2.95 grams.
42 Although the reverse inscription changed later in 674 H, the weight did not.
43 Up to this point, the Baghdad obverse legend had remained the same since 658 H.
44 This is the last stage in the discussion only. All three points happened very quickly and are impossible to put in sequential order.
45 Kolbas, "Mongol Money", Graph 4. Comprehensive Hexagon Coinage, 643, 650–68 H.
46 *Ibid.*, Graph 8, Curved Hexagon and Early Mongolian Coinage, 671–6 H.
47 Baghdad was no longer minting.
48 Steve Album, private collection; 2.84 grams. The date is worn and illegible.
49 American Numismatic Society 38.11.19; 2.63 grams. The few extant coins give an average of 2.64 grams.
50 Münzsammlung (Munich) 85137; 2.75 grams. This coin is from 672 H.
51 Lang, 49.
52 The south may have lost its predominance in trade because of foreign competition in the spice and pearl markets. Perhaps demand also changed as Mongol and Turkish consumption favoured different products.
53 Bibliothèque Nationale M663; 6.86 grams, with hole.
54 Iran Bastam Museum 234; 3.15 grams.
55 British Museum 1973.5.6.4; 2.89 grams.
56 American Numismatic Society 70.91.2; 9.07 grams.
57 Steve Album, private collection; 1.15 grams.
58 Sotheby Auction Catalogue, June 1987, lot 969; 3.80 grams. There is no date.
59 Steve Album, private collection; 2.73 grams. The reverse has *Qā'ān/Pād-i Shāh-i/ʿĀlam Ābāqā* with no *Il-Khān*. The obverse had the standard short *shahada*, but not in the normal square, and the date and mint in the margin. Only the number four is legible, so it is presumably from 674 H.
60 He did so, for example, in his *Aḫlaq-i Nāṣirī* and in his epistle discussed by M. Minovi and V. Minorsky, "Nasr al-Dīn ṭūsī on Finance".
61 It replaced the intricate T-shaped curl copied from the Bow coinages.
62 Note the prayer to Heaven translated by Charles R. Bawden, "A Prayer to Qan Ataga Tingri", *Central Asiatic Journal* 21 (1977) 199–207. The idea is also the main theme of Sh. Bira, "Mongolian *Tenggerism* and Modern Globalism" *Journal of the Royal Asiatic Society* 14 (2004),: 3–12.
63 For 676 H, American Numismatic Society 17.216.666; 3.41 grams. For 678 H, Steve Album, private collection; 2.69 grams.
64 Spink and Sons Auction Catalogue, March 1987, no.463; 4.28 grams; and June 1990, no. 383; 4.27 grams (a typographical error listed the date erroneously as 667 H).
65 Boyle, "Il-Khans", 361.
66 That is, on 5 March 1283 AD; Lane, 206.
67 In both cases, Jazira ibn ʿUmar used Mardin reverses a year after their use in Mardin.
68 Jazira ibn ʿUmar's silver with this type started in 665 H, then continued in 667, 671, 673, 676 and 678 H.
69 Compare the same type with Mardin from 675 H, British Museum 1973.9.11.6; 2.60 grams.

70 British Museum 1922.7.17.69; 2.56 grams. For the term *tumān* as "district", see David O. Morgan, "The Mongol Armies in Persia", *Der Islam* 61 (1979), 81–96; 89–91.
71 Steve Album, private collection; 2.69 grams.
72 Ashmolean Museum 71; 2.44 grams.
73 British Museum 1959.9.163; 2.74 grams, with hole. It also struck halves and thirds; Steve Album, private collection; 0.83 grams.
74 As noted in the chart, Yapi ve Kredi Bankasi10324; 2.85 grams. The obverse has the normal configuration of the short *shahada* for Jazira ibn ʿUmar, i.e. with *Āllāh* alone at the top, unique for the mint. The reverse margin clearly states *Mardīn, 670* (H) with *thamān* or "eight", replacing the scratched-out word *sana*/"year". The reverse has *Hūlāgū Il-Khān* in the central field. This adaptation was unique for the mint. Mardin was not minting in 678 H.
75 American Numismatic Society 49.1.63.379; 2.48 grams.
76 Nevertheless, it set a precedent, one which Tiflis indeed soon followed two years later in 680 H for a long period. This change, then, is another hint of a Jochid–Toluid trade alliance and the significant linking role of Gurjistan.
77 Kolbas, "Mongol Money", Graph 8: Curved Hexagon and Early Mongolian Coinages, 671–6 H.
78 *Ibid.*, Graph 4: Comprehensive Hexagon Coinage, 643, 650–68 H, but especially Graph 5: Hexagon Coinage, 650–61 H.
79 *Ibid.*, 'Graph 9. Mongolian Coinage: Abaqa and Ahmad, 678–83 H'.
80 The word is Persian for a kind of grain. It was then applied to weight.
81 The *kharruba* or carob pod gave the best foundation, but other grains were used to make up that weight. In some cases, it was the tiny mustard seed. Of particular note is that 72 barleycorns also made a *qirāṭ* or *kharruba*; Taqī al-Dīn Abu Muhammad al-Maqrīzī b. Ibrahīm b. Muhammad b. Tamīm *Shudhūr al-ʿUqūd fī Dhikr al-Nuqūd*: edited by Bahr al-ʿUlūm, al-Sayyid Muhammad al-Sadīq (Najf, 1967) as *al-Nuqūd al-Islamiyya*. Also A. J. Sylvestre de Sacy, trans. "Traité des monnais musulmanes", *Magasin Encyclopédique*, Vol. 6, IIe année, (1797), 472–507 and continued in Vol. 1, IIIe année, 38–9. Reprint as "Traité des monnaies musulmanes", *Bibliothèque des Arabisants français* (Cairo: L'Institut français d'archéologie orientale, 1905). Above information taken from the section on "Extrait: Traite de poids et mesures legalles de taxation", 49–64: 53.
82 For the last two effective Mongol rulers, Uljaytu and Abu Saʿid, who are not thoroughly covered in this study, consult Sheila S. Blair, "The Coins of the Later Ilkhānids: Mint Organization, Regionalism, and Urbanism", *Museum Notes* 27 (1982), 213; and "The Coins of the Later Ilkhānids: A Typological Analysis", *Journal of the Economic and Social History of the Orient* 26 (1983), 295–317.
83 E. S. Kennedy, "The exact sciences in Iran under the Saljuqs and Mongols", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran* (Cambridge, 1968), 659–80; 663.
84 *Ibid.*
85 *Ibid.*, 667.
86 Steve Album, private collection; 2.45 grams. There is a harp in *ilāh*, but there is no mark on the reverse.
87 American Numismatic Society 00.999.11225; 2.27 grams. There is a circle in *ilāh*, and there is no arabesque on the reverse.
88 The four specimens known from Nihawand and Kashan average 2.49 grams while the one probably from Hamadhan (partial mint reading) was subsequently shaved in the eighth/fourteenth century since it weighed only 2.27 grams.
89 Yapi ve Kredi Banrasi 10378; 2.70 grams.
90 American Numismatic Society 22.216.263; 2.43 grams.

91 American Numismatic Society 22.216.262; 2.98 grams.
92 American Numismatic Society 20.153.96; 2.75 grams.
93 Steve Album, private collection; 2.76 grams.
94 American Numismatic Society, 66.126.59; 2.73 grams.
95 American Numismatic Society 55.137.24; 2.75 grams. When the day and month are in the margin, they usually announced the celebration of a holy event. However, there is no Muslim holiday known for the tenth of Sha'ban; rather, the important date is the fifteenth. Nevertheless, the inscriptional practice is so well attested that it seems there was some special occasion. Moreover, 10 Sha'ban occurs on other issues.
96 Steve Album, private collection; 2.81 grams.
97 Steve Album, private collection; 2.75 grams. The mint and date are outside the square on the obverse, but the year is illegible. Only the decade and century are visible.
98 Steve Album, private collection; 2.79 grams.
99 American Numismatic Society 22.211.267; 2.73 grams, with a hole.
100 American Numismatic society 22.211. 286; 2.74 grams.
101 Bank Sepah 29; 2.75 grams.
102 Bank Sepah, no number; 2.69 grams.
103 An exhaustive study of such royal settings is in Peter A. Andrews, "The Mongols", *Felt Tents and Pavilions: The Nomadic Tradition and its Interaction with Princely Tentage* (London, 1999), 271–667.
104 Steve Album, private collection; 2.68 grams.
105 The severest restrictions on movement occurred immediately after the death of a khan. "The roads were closed ... and ... everyone should halt in whatever place he had reached..." This information is part of Juvayni's report before Mongka's accession, which had occurred only thirty-one years before; Juvaini, 262.
106 The Mongols practised the same policy in China.
107 Jaziran revenue had been the main support of the regime for ten years. Its current tax break was filled by revenue from other parts of the state.

7

TEGUDAR AND ARGHUN

The first Toluid civil war

Tegudar, 681–3 H

Abaqa's brother, Tegudar,[1] was proclaimed the new ruler on 25 Muharram, the first month, of 681 H or 6 May 1282 AD. In keeping with Mongol mourning tradition, he kept the *yarligh/yasaq* of the preceding ruler until a *quriltei* proclaimed new laws and implemented them at the end of the official mourning period of one year. The outward manifestation of this practice meant that his predecessor's name remained on the coinage; all dies stated *Ābāqā* even though they contained the current date of 681 H. Further, most policies stayed in force; so there was no hiatus in mint production. Coinage was issued immediately; yet it was restricted to only three places, namely Tabriz,[2] Hamadhan[3] and Jazira ibn 'Umar.[4] Only in late 681 H with mourning over did Tegudar put his name on the coins and appoint a different mint master.

Matters moved swiftly once the new administrator appeared. As usual, the director identified himself by putting a symbol on the obverse in the first line of the inscription inside *ilāh*. He used a star to replace the circle, announcing that Tegudar had reappointed Abaqa's former supervisor from 674–6 H. Master Star this time continued at his post into the reign of the next khan, holding office until the middle of another set of vigorous changes. If the symbol always represented the same individual, he started work in 658 H and served as mint master off and on for twenty-eight years.

Another sign that Abaqa's policy would be retained was that, on the right of the reverse field, the curly twist still appeared, indicating that Master Arabesque had quickly returned from Khurasan and was still the partner. The two officials began their new tenure by replacing Abaqa's name with *Āḥmad*, Tegudar's Muslim name. Although the khan never used his Mongol name on the coinage, at first the name change was not a propaganda ploy to impress local Muslims. Most Muslims were unable to read it because the die had only Uighur script. Since the directors followed the same format as that of Abaqa's Mongolian coinage, they signalled the continuation of the same policy, namely that all regions were under the trade tax. However, that policy still meant employing various methods in different regions.

Administration

Tabriz

At the outset, Tabriz struck gold in 681 H, apparently using the same reverse die with five lines of Mongolian script from its 678 H *Ābāqā* gold minting.[5] The obverse followed the normal pattern; but, for the first time, it had *Āḥmad* in Arabic script at the top, which set a precedent for subsequent gold coinage until 698 H. On the other hand, the silver,[6] as described above, continued the same format as Abaqa's coinage. The directors seemed to have everything under reasonable control even as a hint of political manoeuvring emerged. That hint lies in the weight of the silver coins. From 681 H on, almost an equal number of coins were on the lower Tabriz standard as there were on the Tiflis one. Already, the government was relying heavily on Gurjistan; and the region's influence grew during Tegudar's short reign.

Hulaguid territory

Once Tegudar had appointed the chief directors and Tabriz had started to mint, financial policy emerged quickly. Basically, the directors tempered the progress of the great reform to allow Master Arabesque to focus more fully on the conversion of Khurasan and Gurjistan into the main system. To do this, Masters Star and Arabesque simplified matters and separated the Hulaguid region from Tabriz.

In Hulagu's territory, Master Star now reverted almost completely to his seasoned practices, which required less control from Tabriz. This policy meant taking a step backwards to the lines of 676 H as the Jaziran region once again became more powerful than Baghdad. That southern city and its area, in fact, continued to be absent from the tax registers. Meanwhile, the renewed strength of the Jazira allowed it to implement its former programme of type, production schedule and centre. As a result, Tabriz rescinded Mardin's recent status and returned authority to al-Mawsil. The city announced its restored role late in 681 H by striking gold of the same type as 673 and 676 H,[7] silver of the former *Īl-Khān* type[8] and the crescent copper with both the ruler's name and the *shahada* on one side.[9] All, however, had Ahmad's name in Arabic script and called him *īl-khān*. Not only did the resurgence of al-Mawsil signal the re-appearance of the Jaziran system of balanced trimetallic production, but the complete use of former dies on all metals also showed how fast the eager regional officials implemented the policy.

Rather than worrying about die types, al-Mawsil's administrators found that the most complicated aspect was to balance the production of different metals. The difficulty of providing three metals for a full monetary system seems to have required all the resources available, leaving nothing left for the creation of new dies. Meeting the challenge, the re-established department balanced output in two ways. The first was the easiest; namely, the chief mint produced coins in all three metals, itself. Thus, in the inaugural year of the reinstatement of the former policy

of 676 H, al-Mawsil made everything, as noted, and had one scion copper mint, Sinjar. The latter struck in 681 H, presumably late in the year following the al-Mawsil copper prototype of that year. The normal obverse and reverse statements were efficiently combined on one side. It read *Qā'ān/al-Aʿẓam/Āḥmad Īl-Khān/al-Muʿaẓẓam* in the centre with the margin declaring the Muslim profession of faith; it is the message about the ruler that was more important to the diwan. The other side held the old insignia of Sinjar, which was a Byzantine image of the ruler wearing a royal mantle.[10]

Thus, the entire province once again produced gold, silver and copper; but there was a curious conflation of positive and divine statements of law. They appeared on the same side of the coin no matter whether it was copper or gold rather than on opposite sides as normal. The region poured out money without any need for new guiltiness from Tabriz. Apparently, since once again the government was taxing trade revenue, al-Mausil needed neither direct supervision nor dies from the capital.

Then in 682 H, once the programme was running, al-Mawsil was able to adjust it. First, the mint designed a new silver reverse. It put the same Arabic legend in an arch above a central *Ahmad* in Uighur script.[11] This change brought it marginally closer to the main Tabriz die. Second, it adopted a different method of balancing output; it struck only silver and stopped producing gold so that it could expend more effort on managing copper. It designated Sinjar to rotate copper production with Irbil, the latter's traditional running hare appearing again about this time but with no mint name or date.[12] The region had used two tested approaches for a balanced metallic output, yet al-Mawsil stopped minting at the end of 682 H. The reason did not reside in the Jazira but in Tabriz; its approval and attention were drawn to dangerous political developments elsewhere.

Khurasan and Gurjistan

The other regions of the realm, Khurasan and Gurjistan, did not go backwards but proceeded along the path envisaged for them under the last years of Abaqa's reign. In this period, they both cemented their joining the trade tax. In Khurasan, Master Arabesque first gathered the previous obverse central hub from Marw, containing the distinctive middle line of *Muḥammad* stretching the whole length of the line and his mark in the centre of it. He then put it together with the new central hub of the *Ahmad* Mongolian reverse with five lines of Uighur that he had probably again brought from Tabriz. Continuing from the place he had left off at Naysabur, he went to Isfara'in to strike silver with this combination, which contained no date.[13] The obverse had only the mint, *Isfara'īn*, inscribed in all four sections while the reverse had an attractive marginal curved pentafoil design to hold the Uighur lines. In spite of the lack of a date, political events allow only late 681 and/or early 682 H for the issue. Since the weight stayed at 2.75 grams, the accounting system for calculating the revenue of the province had still not converted to the Tabriz registers.

In Gurjistan, Tiflis also followed plans that were set for it during Abaqa's last year, joining the trade system as it finally struck a Mongolian type. At first, as expected, it used Abaqa reverses[14] and then new dies were provided very late in 681 H. However, the coinage represented once again unique political and economic arrangements for the region. First, the obverse inscription abandoned all Persian or Muslim legends and adopted the Trinitarian Christian profession of the Georgian faith in Arabic as *B-ism al-āb wa-l-ibn wa rūḥ al-quds ilḥ al-waḥid* – cross and star/"In the name of the Father and the Son and the Spirit, Holy God is one".[15] This type lasted for another seventeen years, until 698 H, except for the decoration of the star, which later disappeared. The new design apparently represented a change in government for the province, namely that the Georgians were now toeing the line and could be trusted to support Mongol policy. A Persian over-seer no longer needed to enforce Mongol authority; so the coinage could acknowledge the region's separate faith, albeit in Arabic rather than in Georgian script.

Even though the change of legend is informative, another aspect also showed clearly that the region had a special arrangement. This was the unit weight. Tiflis reduced it; a change that also lasted until 698 H. The new unit standard was 2.33 grams or 13 carats of the 4.30-gram mithqal, putting the individual coin once again below that of Tabriz. As a result, although the issue adopted in principle the new reverse design of Tabriz and thus its taxation measures, it was slightly different, just as the Tiflis Hexagon had been. Thus, Gurjistan retained old privileges and expanded them under Tegudar even as Abaqa's taxation reforms came into effect in the land. The special status of Gurjistan was attained through loyal troops and money since much of its coin furnished the flans for Tabriz.

The centre

In Tabriz, the new master was chiefly concerned only with the capital and ʿIraq-i ʿAjam. The central province, unlike the Jazira, Gurjistan and Khurasan, did not differ from Tabriz in any way with regard to die or type of metal. However, ʿIraq-i ʿAjam struck at only one site, Hamadhan. In late 682 H, it received the new Tabriz reverse, considered next, with four lines of Uighur and *Āḥmad* in Arabic below.[16] The city was out of step with Tabriz only in its weight since it did not relinquish the traditional 4.24-gram mithqal and put the unit weight at 2.47 grams or 14 carats.

Master Star's main concern was dealing with a curious innovation. This development occurred in the middle of 682 H as the financial diwan transferred from Tabriz to Tegudar's royal camp. The new mint site was called Bazar, reflecting the light manufacturing and market that accompanied the ruler on his moves. By using the word *bāzār* rather than *ūrdū*, the government declared that the purpose of the money was related to the market. However, the shift of site was but a brief sign of an exceedingly rare phenomenon in Mongol coinage. Normally, the central mint and officials did not move with the ruler: rather, they moved to collect taxes

at regional points. Even the exception at this date was ephemeral since minting at Bazar did not last long into the next year.

The attempt to centralize all decision-making at the *urdu* led to a minor type variation of the silver. In 682 H at Bazar, Tegudar introduced his Muslim name of *Āḥmad* in Arabic script on the bottom of the reverse: it was the first time that a ruler's name appeared in Arabic on the capital's coinage. Although *Āḥmad* but not *Tegudar* had been on all his coinage in Uighur script, its appearance in Arabic was, perhaps, a sign of a stronger need to appeal to his Muslim subjects.

At the same time, the arabesque, set vertically on the right edge of the reverse, was replaced by the Mongolian word *sen*/"that" as part of the mining statement. Apparently, Master Arabesque was relieved of his position because the Khurasani programme ceased early in 682 H. At the same time, the designer made another slight but important modification, which lasted until the end of Tegudar's brief rule. He cut off the very tip of the bottom corners of the obverse square, making it as identifiable as Ahmad's coinage as the reverse did with his name.[17] Later in 682 H, the diwan returned to Tabriz, in which both the new obverse and reverse centres continued for another year through 683 H.[18] During all of this, the weight remained unchanged at 2.43 grams.

Decline

In 682 H, however, during the period that the diwan resided with the royal *urdu*, monetary activity started to be restricted. At first glance, all seemed well: Tiflis struck in the north during the year, Bazar/Tabriz minted in the centre, and ʿIraq-i ʿAjam produced at Hamadhan. Further, even the Jazira began to inch towards the common policy as al-Mawsil began to fall-in behind the rest of the empire. It was a false sense of unity, however, since the empire was hardly co-ordinated and had few mints.

Moreover, trouble was brewing in Khurasan. Master Arabesque had lost his post there as the region came into the hands of the khan's rival. In 683 H, the rebellion, which was gaining momentum and about to succeed, seriously affected administration in the entire realm. That year, minting activity everywhere shrank even further than before. Although Gurjistan continued to strike silver, the Jazira, Khurasan and ʿIraq-i ʿAjam produced nothing. Tabriz, however, perhaps in desperation, struck both silver and copper. The copper had no mint name, but it was made from the final Tabriz silver obverse and reverse dies.[19] The administration had practically collapsed.

In conclusion, under Tegudar, there was a combination and continuation of previous policies. First, there was trimetallism in the Hulaguid region. Second, the Jazira was back under the aegis of al-Mawsil. Third, Gurjistan and Khurasan were further enrolled in the trade tax register. There seemed to be cause for concern, nevertheless, as indicated by the centralization in Adharbayjan taken to extremes by requiring the mint master to accompany the royal camp. The mint apparently did not have authority to operate without constant and close

consultation with the sahib diwan or the ruler. This seems to have precluded Master Star from being directly active in the Jazira. Although Master Arabesque successfully continued to convert Khurasan and Gurjistan to the new tax structure, he fought a losing battle to carry it beyond the regional capitals. At best, the two directors maintained the *status quo*. Their use of the old system in the Jazira and retention of the slight but significant distance of Gurjistan and Khurasan from Tabriz, which are evident form the designs and weights of the areas, should not disguise the advances they made: all were on the *tamgha* tax, as witnessed by the Mongolian reverse in three areas and the trimetallic system in the Jazira. Their ability to manage a difficult task seemed to have been appreciated by the nephew who overthrew Tegudar. Masters Star and Arabesque were retained for another four years.

Arghun, in 683 and 684 H

The financial role of wazirs

After waging war against his uncle, Arghun succeeded him in mid-683 H. He needed approximately six months before endorsing a new administration and monetary policy; but before that he cleaned house. He started from the top, sweeping away regional governors and most of the central establishment but keeping the financial directors. The first sign of Arghun's attitude was his dismissal of the veteran wazir or sahib diwan, Shams al-Din Juvayni, who had been appointed by his grandfather, Hulagu.

Late in Abaqa's reign, enemies of the wazir had accused him of insubordination, which Abaqa had found to be untrue. Arghun, Abaqa's son, however, had continued to harbour suspicions and later even blamed Shams al-Din for his father's death. He believed it had been caused by poisoning even though Abaqa had died in a fit of alcoholic *delirium tremens*. Tegudar had compounded the situation by usurping the throne in Arghun's eyes and retaining Shams al-Din in his post.[20] Therefore, once Arghun became khan, he soon had Shams al-Din Juvayni quickly executed on the third of Ramadhan 683 H, four months before the end of the year.[21] Arghun never accused him of financial wrongs because he had never exercised direct control over monetary affairs. Indeed, he had been in power concurrently with the influential men of finance, Arghun Aqa and Nasir al-Din Tusi. They were the ones who had directed so much of the previous policy. In fact, Arghun Aqa had died still holding the post of tax master-general. The limited role of wazirs, including that of Shams al-Din Juvayni, can be deduced by comparing monetary policy with their periods of office. Such a study, as shown at the end of the previous chapter and subsequent material, suggests that throughout almost all of Mongol rule in Greater Iran, the mint was a remote and subsidiary department or even a separate section of the chancery. The wazir's main financial function was not taxation but expenditure. The reason for this becomes clear as policy unfolds in Arghun's major reform of late 683 H and the various changes in 687 H.

Transition of 683 H

Tabriz, special solutions

The change of wazirs highlighted events elsewhere. At Tabriz during the political and administrative transition in the second half of 683 H and the beginning of 684 H, the majority of coins continued to be not at its weight standard of 2.43 grams but at the Gurjistani one of 2.33 grams. Two factors led to this situation. First, it seems that the civil war had exhausted the central treasury; and, most likely, it was bare. Therefore, as Arghun took over, Master Star quickly re-stamped large sums from Tiflis in order to make the new regime solvent. Second, the Georgians, having their own native governors, probably had to pay reparations for supporting Tegudar. The former khan had relied heavily on Armenian and Georgian troops.[22] Moreover, one of his best generals was his Georgian son-in-law, who had once even captured Arghun in Khurasan.[23] The money seems to reflect these political dramas.

The unusual standard of 2.33 grams that dominated Tabriz was soon changed, yet the weight re-appeared later in some regions. The reason it popped up sporadically elsewhere is unknown; but, perhaps, these early Arghun coins were sent as models as monetization spread in his reign and those of his brother, Gaykhatu, and son, Ghazan. Nevertheless, standard mints also had brief issues at this weight. Examples under Arghun are the peacock and its subsequent type at Hamadhan,[24] yet he also permitted this weight in a normal issue at Baghdad.[25] Later, Gaykhatu approved this weight at Jajarm,[26] and Ghazan allowed Kashan[27] to use it as well as Kirman with its unique tiger type.[28] Curiously, all Mongolian silver with an animal except the Tabriz Falcon had this weight. The phoenix-like death and rebirth of this standard is the most elusive problem of Mongol coinage during this period.

The design, even though stamped on an originally Tiflis flan, belonged unequivocally to Tabriz. The reverse immediately substituted *Ārghūn* for *Āḥmad* in both the Uighur and Arabic scripts. The precipitous move showed that there was no official mourning for Tegudar. Thus, the reverse told the tale, sending the important new political announcement. Conversely, the obverse declared continuity since the die from Tegudar's reign continued into 684 H with only a date change.[29] This was the same type with the bottom corners of the square cut.

Besides re-stamping regional money and using Tegudar's former obverse die for the main coin, another indication of emergency measures was an emission of silver quarters. Although no date appeared on the tiny flans, they followed the same standard of 2.33 grams for the full unit, providing a strong hint that they were minted at this time. The quarter had an obverse of *li-llāh* cradled between the ascenders of *al-mulk* while below it was *ḍarb-i Tabrīz* or "Authority belongs to God/the mint of Tabriz". The phrase *al-mulk li-llāh* was taken from the first small change emitted by Tabriz in 676 H. The silver quarter had two decorations at the top of the obverse, a fairly flat horizontal S-shaped curve like a Chinese cloud at the left and a star at the right. The reverse had the first line in Uighur

script, reading *khaghanu*/"of Khaqan" and below it *Ārghūn* in Arabic script.[30] Although minimal, the legends fulfilled all numismatic requirements.

Collapse in the provinces

COPPER AND GOLD

The precarious nature of the regime was also reflected in events in the provinces. In particular, there was a variety of local copper that helped to fill the coffers. In the old Hulaguid territories, copper came from three mints. Irbil issued its traditional hare type,[31] and al-Mawsil struck its monarch–crescent in 683 H.[32] Following that, Baghdad had a copper issue in 683 and 684 H. It used the Tabriz silver Uighur reverse, and its obverse had a quatrefoil around the field with the minting formula euphemistically proclaiming *al-dirham*.[33] Across the mountains in the south, the ruler of Yazd, ʿAla' al-Din Yusuf Shah, also struck copper, which he did for Muharram of 684 H. The obverse had no *shahada* or name, just the date; and the reverse stated *ḍarb-i Yazd* above a diving bird. The image was probably meant to be a type of falcon, but it was so plump that it resembled a goose.[34] In contrast, Hurmuz struck gold with the atabag style in 683 H.[35] Shortly thereafter, every place stopped minting.

SILVER

There were many signs of fragmentation in the regions but the main one was the lack of a centralized silver policy. In 683 H, Arghun Khan's imperial silver reverse was produced only at Kashan. Dutifully, it struck silver with the same reverse die as Tabriz but stayed at its previous weight.[36] It also issued a silver half series with a Uighur reverse and the date and mint on the standard obverse.[37] Otherwise, every region was on its own, separately administered and exhibiting a tenuous connection to Tabriz in different ways. In particular, the province of Fars had only Shiraz striking silver but with a separate atabag type.[38] Meanwhile at the same time, Master Arabesque resumed his former policy in Khurasan. He returned to Naysabur, which continued to use the five-line reverse from the early part of Tegudar's reign. It had no Arabic but was struck in Arghun's name. However, the issue added a margin that listed only *Naysabūr* three times.[39] The city also produced a half unit apparently at this time that contained only three lines of Uighur with no name.[40] Thus, Khurasan followed the same policy as Tabriz and Kashan did, issuing single and fractional silver. There was no silver production anywhere else, and money from the areas that did produce had types or weights totally different from one another.

The plethora of varieties in different metals and the haphazard location of sites create a strong impression that, except for the centre, coinage at the beginning of Arghun's reign was farmed. There were extremely few controls from Tabriz, perhaps only edicts about the general nature of the designs and inscriptions. As the coinage illustrates, the need for re-organization was evident not only from the

problems in Tabriz of re-stamped coinage from Tiflis, former basic hubs, special petty silver denominations and copper emissions around the country but also from regional mint policy. The brutal civil war, the first in the separate realm, had brought the state to its knees.

Notes

1 *Tegudar* means "perfect".
2 American Numismatic Society 17.216.670; 2.41 grams.
3 Iraq National Museum 192; 2.47 grams.
4 Steve Album, private collection; 2.45 grams.
5 Sotheby Auction Catalogue, March 1981, lot 182; no weight.
6 American Numismatic Society 17.216.572; 2.28 grams.
7 Bibliothèque Nationale, no number; 4.37 grams. The reverse has *Mungkū Qā'ān al-Aʿẓam/Aḥmad Īl-Khān*. The word *Mungkū* means "eternity", probably a synonym for *Tingri*, the Eternal Sky God of the steppe.
8 Iraq National Museum 22628 (a); 2.38 grams.
9 Ashmolean Museum 90; 4.54 grams. The date on the copper is illegible but probably this year. Indeed, no copper from this series for this study has a legible date.
10 Iraq National Museum 931/3; 4.83 grams. The peacock type was not re-instated.
11 Iraq National Museum 23100; 2.45 grams.
12 Iraq National Museum 12538; 4.50 grams.
13 Smithsonian Institution 1981.27.09; 2.50 grams.
14 Lang, 45, offers 680 H as a possible reading for several illegible dates; but if the region followed the same mourning and policy practices as other areas, these coins were probably issued in 681 H.
15 American Numismatic Society 22.216.27; 2.33 grams.
16 Steve Album, private collection; 2.47 grams. Unfortunately, this is the only known coin; and the year is too worn to be verified
17 Münzsammlung (Munich) 84881; 2.23 grams.
18 For 682 H, American Numismatic Society 17.215.793; 2.45 grams. For 683 H, Yapi ve Kredi Bankasi 10393; 2.08 grams.
19 British Museum 1967.1.12.21; 3.94 grams. The date is 683 H.
20 Boyle, "Il-Khans", 365.
21 *Ibid.*, 369. Earlier under Abaqa, his brother, ʿAta' Malik Juvayni, the governor of Baghdad, had fallen and had died just a year before Shams al-Din.
22 *Ibid.*, 368.
23 *Ibid.*, 365–7.
24 American Numismatic Society 22.216.69; 2.33 grams. The date is off the flan.
25 Ashmolean Museum 93; 2.35 grams. The date is 684 H.
26 Iran Bastam Museum 86; 2.35 grams. The type has no date.
27 Yapi ve Kredi Bankasi 10594; 2.37 grams. The date is 686 H.
28 British Museum 1971.3.20.58; 2.37 grams. The type has no date but was issued no later than 696 H.
29 Yapi ve Kredi Bankasi 10391; 2.35 grams, with hole. The date is 684 H.
30 Münzsammlung (Munich) 92731; 0.48 grams.
31 Steve Album, private collection; 3.54 grams. In 661, 671, 678 and 683 H, Irbil issued the copper type of a running hare in the centre of the obverse, sometimes over a crescent moon, with the *shahada* around the margin. When the reform arrived, Irbil stopped issuing this type of copper. Instead, its new copper had a standard Uighur reverse with the date in the margin.
32 Steve Album, private collection; 4.12 grams.

33 Steve Album, private collection; 4.01 grams.
34 American Numismatic Society 79.149.2; 2.19 grams.
35 British Museum 1971.12.15.2; 4.16 grams. The gold has *Ātābag Nusrat bin Maḥmūd* on the obverse and his overlord, the ruler of Kirman, *Suyurghatmish*, on the reverse.
36 Steve Album, private collection: 2.41 grams.
37 Ashmolean Museum 101; 1.18 grams, with hole.
38 Steve Album, private collection; 2.44 grams. It has *Ābish bint Sa'd*.
39 American Numismatic Society 56.137.21; 2.90 grams. Only two specimens were located for this study, so the weight pattern is unknown. Nevertheless, it probably remained at the previous level.
40 Steve Album, private collection: 1.45 grams. The date portion is worn on both coins found for this analysis.

8

ARGHUN

Inspired vision and rapid innovations

Stabilization and unification

Arghun Khan did not take long to take hold firmly of the realm. Working on many fronts at once, he soon replaced the emergency measures with stabile polices. The first front was political as the former system and people made way for a new order. After removing the wazir, Shams al-Din Juvayni, and his power bloc, Arghun Khan appointed a new one headed by the general, Buqa.[1] The new wazir was installed near the end of 683 H[2] and was assisted by his brother, Aruq, just as Shams al-Din had been by his brother. However, unlike the Juvayni family, this one was Mongol. Buqa remained in power until he was executed at the end of 688 H, but during his administration, remarkable advances took place in the monetary and fiscal development of the empire.

The energetic feeling and promise of the new regime was reflected in the exploration of an emerging calligraphic style, the *muhaliq* script. This style visually caught the racing momentum of events. It benefited from the superb skills of Jamal al-Din Yaqut or one of his school. Yaqut was a black slave who had served the last 'Abbasid caliph and then the Mongol court. He is recognized as the third and last great innovator and executor of Arabic calligraphy.[3] At this point, he inspired an elegant depiction of Arghun's name in Arabic. It used graceful, running cursive strokes of thick and thin lines which connected separate letters into a smooth, moving line, in this case the *ālif* to the *rā'* and the *wāw* to the *nūn*. Yaqut perhaps created it in response to the rapid, flowing style of Chinese brushwork and the connected Uighur script he saw at court. He was to continue developing the style on coins under the next khan, Irinchin Turji, but applied it only to their names.

On another front and at the same time, Arghun Khan ordered a major reform of the financial system. There were two periods, the initial one running from late 683–6 H and the second from 687–90 H with several stages in each. In the first period, there was an immediate weight change and a re-organization of production practices. The aim of these moves was initially to stabilize affairs in order then to allow a comprehensive monetization of the whole realm.

Initial reform period, late 683 H

Arghun Khan strove for continuity as his method to effect stability, so he started his reign with the Mongolian reverse style modified by Tegudar late in his reign, adding his name in Arabic. However, Arghun did more than keep a visual link with the past since he returned to the old mithqal and quality control measures. For the weight, near the end of 683 H, he no longer relied on Gurjistani money and added a star above the *ālif* of his names in both Arabic and Uighur. The symbol signalled, ever so quietly, a momentous change in weight. Tabriz stepped off the previous one and raised the unit standard by 0.04 of a gram to 2.47 grams. After the late 683 H adjustment, only exceptional coins appear with a weight heavier than this standard. Therefore, a complete re-minting of all previous coinages substantially fuelled the massive monetization that soon occurred. The change put the system back on the 4.24-gram mithqal, which never changed again.[4] The new unit weight was 14 carats and remained there for fifteen years until 697 H. This final adjustment completed Abaqa's monetary compromises and careful refinements.

Regarding the quality of the coinage, the purity remained high; but, surprisingly, the means of measuring the weight lost its advancement. Arghun Khan's directors moved away from a fixed point to use again a range of acceptable weights for each coin. Therefore, they brought back the manufacturing practices used from 650–78 H. Beginning with Hulagu's Hexagon coinage, proscribed limits were the judges of a coin's quality. In particular, from 650–68 H, the distribution curve had high sharp ends, above which there was a round curve with an evenly graduated descent on the right to the edge. The highest point was in the centre, showing clearly the standard even without the need to find the mid-point of the limits. From 668–78 H, there are not enough samples of Tabriz's silver coinage to determine confidently the shape of the curve; but the available evidence of a flat spread between definite ends indicates a good probability of the continuation of the remedy rule. By contrast from 678–83 H, a high peak with short, tapering ends occurred with a graded right skew. In the case of low or flat curves, the remedy shows itself clearly by a dramatic reduction of coins at a certain point, falling off to none or perhaps just one coin. For high-peaked coinages, the range is the end of the curve. In either situation, lower and higher weight coins beyond these points are scattered and belong to other issues, being either pared or re-stamped. Therefore, two factors are involved with the weight of Mongol coinage, the type of curve and the limits of the remedy. All the separate graphs of Arghun's different Tabriz types exhibit the same profile, in which the limits of the range are sharply curtailed. The only difference is that the earlier group has a broad hump in the centre with a slight right skew[5] whereas the dramatic 687–90 H Falcon coinage has no peak at all.[6]

Not only was the former method re-instated but the original limit was envisioned as well, ready to emulate Hulagu's coinage. The previous spread of the Mongolian Tabriz issues of Abaqa and Tegudar had been two carats,[7] which again he found unacceptable. In less than a year, starting with his 683 H coinage provided by Tiflis, Arghun cut the tolerance sharply to three-quarters of a carat. Then in his

reform coinage, the limit became one carat of the 4.24-gram mithqal. These comparisons of range and method show that the quality attained by the weighers aiming at a single point was not as precise as that using the sharp drop limits. Apparently, the government was adamant about creating reliable measures of wealth and precise accounting. At the moment, the former method was best. However as the diwan worked through the benefits and drawbacks of these two systems, it combined both techniques starting with the next khan. By the time of Ghazan's reform, the diwan had mastered the central point technique so that the tolerance reached the original and very tight half carat exhibited by Hulagu's third period Hexagon coinage.

Major reform period, 684 through 686 H

Shortly after the other two changes of wazirs and weight, Arghun Khan stabilized the new administration at the *quriltai* of 684 H. Although he accepted the familiar practice of dividing the realm into three parts, the old form of regionalism did not reappear. Arghun's goal was to centralize politics and finance. The civil war had left a heavy aura of suspicion in him, so he put immediate control not into the hands of administrators this time but members of his family. He assigned his brother, Gaykhatu, to share the governorship of Anatolia with a cousin. He made his son, Ghazan, rule Khurasan[8] and another cousin, Baydu, govern ʿIraq-i ʿArab.[9] Probably at the same time, Arghun ordered the diwan to monetize the entire realm. The reform was possible because of the solid stability of the unit and mithqal standards. They provided a welcome respite and a necessary base for a major re-structuring, which produced a radically streamlined financial system. It revived Abaqa's plan under Master Circle for a universal stamp and weight based on the Tabriz coin. Therefore, Tabriz took its unit weight of 2.47 grams and spread it across the empire. In so doing, the original Tabriz mithqal of 4.24 grams became the mithqal of the entire domain. As a result, this year announced the death of the 4.125-gram mithqal because Mongol money now prevailed over most of the Near East.

Universal application of the Tabriz design and standard

In 684 H, the single silver unit, consisting of the Tabriz type and weight, was issued simultaneously over most of the realm. The speed of the change was lightning quick and unprecedented, taking about only one year to complete. Twenty-six mints issued Tabriz's type and weight. In Greater Khurasan, they were Bazar-i Urdu,[10] Isfara'in,[11] Jurjan,[12] Khabushan,[13] Marw,[14] Naysabur[15] and Sabzavar.[16] In ʿIraq-i ʿAjam, they were Shiraz,[17] Hamadhan,[18] Isfahan,[19] Kashan,[20] Khurramabad,[21] Kirman[22] and Yazd.[23] In Gurjistan, it was Tiflis.[24] In Adharbayjan, they were Ani,[25] Bardhaʿ[26] and Ganja.[27] In ʿIraq-i ʿArab, they were Baghdad,[28] Irbil,[29] Jazira ibn ʿUmar,[30] Mardin,[31] al-Mawsil[32] and Sinjar.[33] Statistically, they constituted more than four times the total number of mints as in the previous period and twelve times those that had produced the Tabriz die. Not only were the mints the highest

number the Mongols had ever managed from Tabriz, but many had not produced before under them and several never again. This remarkable explosion reached from Sinjar and Baghdad in the west to Marw in the east and from Tiflis in the north to Yazd in the south.

The remarkable achievement of this decisive policy had little real experience to direct it, so it is no wonder that there were distinct disturbances within it. Indeed, fractional money stayed on the 4.30-gram mithqal. In 684 H, Tabriz issued halves,[34] and probably in 684 H, Naysabur struck quarters. One type from Naysabur put the mint on the bottom of the reverse[35] and another followed the reform style with the mint between the third and fourth lines of the miniscule Uighur text. However, only *ḍarb-i* is visible.[36] Moreover, discrepancies in the main coin occurred in nine locales, which were, in descending order of aberration, Rum, Dhihistan, part of central Khurasan, Gurjistan, the atabags of Shiraz, Yazd and Kirman and finally northern Adharbayjan.

The greatest exceptions were Rum, Dhihistan and central Khurasan, still claiming special concessions. The khan's brother, Gaykhatu, governed Rum and presumably a good portion of its tribute went to his personal treasury. The region did not change its type or weight. However, over the course of Arghun's reign, its monetary production declined considerably. As for Dhihistan, its capital of Astarabad also minted at this time, but it had a variety of reverses which used Arabic, not Mongolian, and placed the Shi'a credo on the obverses, a freedom it retained for fifteen years. Further proof that it had escaped the general programme was that the individual coin weights were random. Apparently, it still found it preferable to issue coins in purses rather than for single payments. Since the average weight was close to 2.75 grams, the Khurasani standard under Abaqa and Tegudar, Astarabad seems to have simply re-stamped old coinage from the region, perhaps being a recycling area. Traders leaving Khurasan for the steppe could have sold their old coins at a higher price there than they would have obtained in the Chaghadaid realm. In Central Khurasan, Tus also organized its own system. It followed the Tabriz reverse legend with the Khurasani arrangement of the mint between the second and third lines, but the border differed. The obverse was significantly unique since it re-introduced the old symbol from Sind of the bull. In 684 H,[37] a lone bull appeared and, in 685, a cow with a milker beside it. Since each of these coins is unique for the study, a determination of the weights is impossible. However, it seems that the two outposts of Astarabad and Tus had special arrangements with Tabriz.

As for the region of Gurjistan, Tiflis accepted the new reverse stamp in Shawwal of 685[38] but retained the obverse Christian legend adopted under Tegudar. It continued to mint this type even though both its weight and alloy were only 70 per cent of the Tabriz standard. As with Dhihistan, part of the reason probably reflects its intermediate trading position between different *ulus*es, in this case the Jochid and Toluid ones.

These were the major areas of exception; but, elsewhere, there were some other bumps in the smooth flow of the reform, all of which occurred for political reasons.

Notably, the peripheral southern areas of the atabags of Yazd and Kirman were allowed to mint for the second time. For both, the obverse inscriptions did not completely follow the Tabriz model. Rather, they still acknowledged the local ruler underneath the *shahada*. As for Fars, Shiraz issued gold with standard legends, including Arghun's Mongolian reverse, in 683 and 684 H.[39] However, early in 684 H, Shiraz also returned to minting silver and joined the other atabags by issuing the same style of coinage.[40] Its inconsistent polices were finally terminated within the year as Abish bint Sa'd was removed from office and retired to Tabriz; the Salgurid dynasty ceased to exist. Further, only later in 684 H did the ruler of Yazd, 'Ala' al-Din Yusuf Shah, issue silver with the imperial Mongolian reverse. Unfortunately, his coins did not align accurately with the Tabriz weight, specimens ranging widely from 2.04 to 3.13 grams and never attaining the Tabriz standard. The country's range of weights and poor stamp impression suggest that it also restruck old coin but on flans that were barely re-heated. Since quality control was not adequate, it ceased minting by the end of the year. Regarding Kirman, Suyurgatmish Khan, perhaps in 685 H, struck silver based on the Tabriz reverse model but without *Ārghūn* in Arabic. As a result, for a short period all three atabag regimes employed the main imperial political statement of the Tabriz reverse. These hybrid coinages were a sign of Arghun's strategy to incorporate all areas. Soon, his intention to have a unified state under tight central control terminated their special status.

In the north, the Adharbayjani mints of Ani and Bardha' employed the Tabriz design. However, they seem to have had the same weight problem as Yazd and Kirman with the same result. Fewer coins are known from these mints, so the cause of their cessation cannot be confirmed. Except for Tiflis, mints that could not or would not maintain strict adherence to the Tabriz weight and type soon closed within the year of 684 H.

Administration and design styles

The purpose of the reform was to create a universal market tax system. The style of the new coin was part of the declaration of this ideal, and it provides some clues to the exchange structure. Following Abaqa's reform style, the reverse continued to hold the Mongolian inscription with Tegudar's innovation of the name repeated in Arabic, and the obverse maintained the Islamic *shahada* in Arabic. There were only three minor variations, consisting of simple decorations in the design of the basic die. They generally appeared in mint or regional clusters, but not always, and did not strictly define administrative areas. This pattern indicates that, once again, the dies may have been the personal responsibility of an individual official rather than an anonymous bureau. The main die had three stars at the top of the reverse, which had denoted the Tabriz mint since 676 H.[41] Now not only Tabriz but also Baghdad, Isfahan, Mardin and Sinjar had the symbol, perhaps suggesting that Master Star in Tabriz supervised these places directly. The second variation replaced the stars with a sinuous arabesque at Kashan, all the Khurasani mints,

Irbil and again Mardin, suggesting that Master Arabesque was re-installed in the east as well as acquiring responsibility for some other areas. The third variation was a single star in Hamadhan while another minting of Baghdad made a slight modification to it by adding a dot on each side of the star. The similarity to Tabriz's stars creates a problem but may simply show that two deputies reported to Master Star. On the reverse, other signs sometimes were imposed on the Tabriz hubs. In contrast to the variable display of obverse marks, the reverse ones emerged in specific regions. They occurred within the field itself at only one place: between the second and third lines of Mongolian script. In Khurasan, it was the mint in Arabic squeezed into all dies except Astarabad[42] and Marw.[43] In Isfahan, it was an extra Arabic *Ārghūn*, directly above the Uighur one. Otherwise, except for the name of the mint, all coins were the same, which was a radical innovation for the realm.

In previous Mongol practice, minute type variations had represented geographical divisions of mint organization. Each site had shared only one or two points of a certain design, inscription, weight, metal or some other factor. Arghun's new system had the same type and weight for all. Further, the common symbols at the top of the obverse and the minor decorations suggest that an integrated team, headed jointly by Masters Star and Arabesque, worked at the main bureau in Tabriz rather than in completely separate regional sectors. The two main officials took firm control of the empire's finances. Since the ministry in Tabriz had much more responsibility than ever before, it had a three-fold remit. One was to make enough stock to provide dies to production points all over the empire. The second was to oversee the quality of fineness and weight, introducing a different measuring system at these sites. Thirdly, since individual responsibility for success or failure lay with the directors, they continued to implement the new policy in person. Apparently for the first time, they were given not only full authority by Tabriz but also a good compliment of craftsmen and scribes. The two masters rotated at times, according to the appearance of their decorations in various mints. Their change of duties perhaps included checking the work of minor officials and taking over briefly if, for example, the other were called to court. The whole system had expanded because Arghun Khan was committed to investing resources to give him much more invasive authority over the land than his predecessors had ever envisaged.

Economic significance of a universal sikka, *a single market*

Arghun's name appeared on all the coinage across the realm starting in 684 H. All his money boasted the same reverse type everywhere, trumpeting both a political and administrative statement of his leadership. The expansion of mint activity was equally an economic revolution that would make his realm more powerful than military forces ever could have done. Each coin with the Tabriz *sikka*, except those of Gurjistan, weighed the Tabriz standard and had an average purity of 95 per cent. As a result, every town and area that acknowledged that *sikka* could trade

without exchange adjustments, an outstanding advantage for commerce. Simply stated, coins of equal value created a single trade currency and a single market. Concurrent with the monetary reform, the government was beginning to equalize customs duties around the country and revise its accounting measures. All these changes benefited merchants and craftsmen by standardizing and reducing transportation and exchange costs. Presumably, the government's intent was to increase everyone's profit in the trading sector so that government revenues would expand as well. That such an economic improvement began to occur in this period can only be conjectured from sporadic comments in the sources about increasing wealth and more efficient accounting practices. Even complaints about fiscal abuses indicate that, within this general time frame of Arghun's reign, substantial economic realignments and unprecedented developments took place.

The technical aspects of the 684 H reform were significant in themselves, yet the real revolution was that Tabriz reshaped its role in Mongol money. Before, it had been the imperial centre for taxation, both for policy and the physical storing of revenue. Now, it regulated trade on all fronts, thereby experiencing an enormously successful shift in its main purpose.

Reforms of 687–9 H

At first in 684 H, policy was directed towards transactions within the Toluid realm, in which each mint had an equal status with every other one. Then, almost three years after the reform, Tabriz changed course. It moved from a general to a specific trade policy to enhance certain sectors. Now, Tabriz increased its role even more as the regulator of trade. The move once again advanced both monetary applications and theory.

Inflation

The change seems to reflect a need to control production better. Since more money than the empire had ever known in total before was minted between 684 and 686 H, the realm may well have been flooded by it. Internal inflation probably existed, serious enough in itself; but it would have also caused items for export to lose value and thereby transform foreign credit arrangements.

The influence of supply and demand on the price of commodities was well known in the seventh century hijra. Evaluating the effect of inflation on earlier money has exercised many current economic historians who have been particularly concerned about the dearth of silver in the region prior to the Mongols.[44] They have seen the "silver famine" as the result of uncontrolled adverse international bullion flows. The presumed inevitable pull over borders of the price of metal has been even applied to Ghazan's incursions into Syria at the beginning of 699 H.[45] Modern scholars do reflect information from medieval sources; but most texts that historians consult are from the eighth century hijra, which is slightly later than the period considered in this chapter. For example, Rashid al-Din noted how

gold departed with alacrity about this time to India, although he did not explain the reason. He contrasted the movement to a plentiful amount of gold in markets later during Ghazan's reform period around 700 H/1300 AD. Almost a century later, al-Maqrizi commented that silver was being taken out of Egypt by Europeans so that Egyptians were left with only copper coins.[46] As a further example, Rashid al-Din stated that people were forced to barter or substitute cloth for coin. In other words, scarcity caused hoarding or a high price for metal; and either case ruled out the use of coinage as a medium of exchange in the market. On the other hand, al-ʿUmari commented that, when the ruler of Dafur arrived in Cairo on his pilgrimage to Makka, he brought so much gold with him that the metal's value was severely reduced. All commentators realized that copiousness caused metal prices to lower and, thus, inflate market prices. As a result, Rashid al-Din and al-Maqrizi both noted that the scarcity of metal made it priceless, and al-ʿUmari showed that an unexpectedly abundant supply devalued it. These reporters knew that whenever a commodity, including money, flooded the market its price went down. Therefore, the power of supply and demand should not be considered the special knowledge of today's economists or people from the eighth century hijra. There is no reason to doubt that the causes of inflation were known at least a century earlier as well, especially in the 680s.

Therefore, if a region intended to have a stable standard of value, the government had to forestall wide fluctuations caused by uncontrolled bullion flow. To do this, the Mongols had several measures at their disposal, which evidently stabilized their money, particularly their main metal of silver. They saw that constant availability had to go hand-in-hand with the other determinants of value, those of consistent alloy and standardized weight. The last two points had been solved in 684 H. However, stable value also required a finely tuned balance of production and distribution, year-in and year-out and in different areas: money should not be cheaper in production years and near the mint but more expensive in off years and farther away. Normally, metal had more value internally as coin than externally as bullion. Since the government was responsible for sound currency, internal monetary factors rather than international trade determined the price and use of metal in as large an empire as that ruled by Arghun Khan. His officials, therefore, controlled the value of coins and their own tax receipts by regulating internal production. Heretofore, trade coinages had normally been limited to smaller regions; so the realm had never undergone this kind of stress on an empire-wide basis. In all likelihood, the reforms of 687 H were, first, a response to over-abundance.

The changing systems of 687–90 H

Period A: regionalism and modulated production

In Abaqa's reign, the diwan had begun to co-ordinate the amount of coinage, the type of metal and the mint locations, as developed from regional arrangements in the Jazira. During that period, al-Mawsil had initiated the programme in 676 H

and again in 678 H followed by ʿIraq-i ʿAjam in 679 H. In the latter area, Tabriz, itself, was in charge, adopting al-Mawsil's production model for the whole region and applying it to Hamadhan and Kashan. Henceforth, the two mints not only started to alternate production between them but also to have regular periods of non-minting.[47] Now, the system spread to other regions under Arghun and later under Gaykhatu and Ghazan until minting cycles finally extended throughout the empire. By regulating production schedules, the central diwan was able to stabilize the supply of money. The ministry chose to organize this rather complicated procedure most efficiently by dividing the empire's production into three regions again. The new obverse coin legends of 687 H, discussed below, identified these areas and the chief mints. They were for the west, Jazira ibn ʿUmar, for the centre, Kashan, and for the east, Bazar-i Urdu.

The government approached the problem by re-evaluating the role of each region. It formulated a sector policy that began in the early months of 687 H but lasted for only a brief time. Various adjustments then occurred for the next three years, all of which amounted to six phases as outlined in Table 8.1 later in the chapter. The first arrangement, designated as Period A in this study, controlled monetization by devolving power to the regional level. In other words, the financial system lost its leaders and now returned to a structure composed of the three basic territories established under Abaqa. Further, the team approach of Masters Star and Arabesque, which had required joint responsibility, was cancelled. In contrast, Master Star reverted to his programme of 674 H with regional centres. The geographic distribution resembled a human body in which the head was Tabriz, the trunk ʿIraq-i ʿAjam, the arm and leg of one side the Jazira and ʿIraq-i ʿArab and of the other Dhihistan and Khurasan. Tabriz controlled most closely the trunk of ʿIraq-i ʿAjam, which had been lengthened in Arghun's earlier reform of 684 H to Fars. Not only did the retroactive move of 687 H follow the same division of Abaqa's realm but it also sometimes had the same mints. For the trunk, it used the same centre of Kashan as it had done in 679 H rather than Hamadhan, which did not mint at this point. In the west, Tabriz closed all the mints of ʿIraq-i ʿArab but kept open the province of the Jazira. The director re-instated Jazira ibn ʿUmar as the centre to serve the whole of the former Hulaguid region as it had at several points in Abaqa's reform. In the east, Bazar-i Urdu in Khurasan became the leader for several of the region's mints. Astarabad was the only mint for Dhihistan and effectively still remained out of the mainstream. The government employed different obverse designs for each of the three regions, yet the designs remained close enough to the central type to show that they belonged to a master policy.

NEW DEFINITION OF *SIKKA*

As noted frequently in this study's examination of previous reforms, the reverse usually reflected policy changes: its political content expressed positive law. The obverse, however, had rarely been altered. When it was, the change in content was just as significant, implying a major shift in attitudes to religion, i.e. divine law, or

to economics, i.e. natural law. Starting in Arghun Khan's reign, subtle modifications on the obverse illustrate that ideas about divine and natural law were active factors in society. The social sophistication fast developing under Mongol suzerainty required different interpretations and expressions for these laws.

For divine law, the obverse had announced a religious shift at the time Astarabad had added the ʿAlid profession of faith first to its 631 H and in this period to its 684–700 H issues. Gurjistan had also put the Christian profession on its 680–98 H coinage, starting under the regime of Tegudar, a much-maligned ruler in contemporary sources for his supposed oppression of non-Muslims. In these cases, money proclaimed official religious tolerance. That tolerance was a point often noted by contemporary commentators, and it had an important function as a basis for peace.

For natural law, another kind of shift occurred with the minting message on the obverse. For example, the term *dīnār* on the Bulghar silver of 622 H as well as *dirham* on pre-Mongol Jaziran copper and on *Khānī* Dirham billon were not misapplications of the traditional terms for gold and silver. Rather, they simply meant "coin" because these words no longer meant a fixed ratio of weight in one metal to that of another. This development was advanced later by Tabriz since the word *dirham* was never in its legend. In fact, its silver coinage declined to call itself a "coin"; only the place and date existed on the margin. This fundamental portion of the theory of natural law had slowly developed across the wider Middle East before the advent of the Mongols.[48] In 687 H, it met a thoroughly conscious and singularly directed radical improvement of the theory. No longer concentrating on metal, this innovation involved the identity of the mint; its role was scrutinized, and the results declared on the obverse. Specifically, there was a transformation in the concept of the authority of a production site, which was added to the responsibility already assumed by positive law. In retrospect, it seems to have been a normal evolution of the Mongol state, in which a mint had issued only when an official arrived. In that method, the direct arm of the state had been in the form of a person who minted, not a town. Now the development meant that the name of the capital, in this case *Tabrīz*, no longer alluded to the site of manufacture but to the type of coin. As a result, *Tabrīz* replaced *dīnār* and *dirham* as generic words and other type names, such as the politicised terms of *manṣūrī* and *khānī*. To emphasise the transfer of meaning, in one case, the regional centre of Kashan added the term *sikka*/"stamp" to *Tabrīz*: the capital's name meant the monetary authority of Tabriz, not the place where the coin was made. This use of *sikka* on coins in the Toluid realm was in contrast to and an advance on the term's function in the Chaghadaid one. There, it continued to mean the sign of the mint issuing the coin. The term has not been reported for Samarqand, but it did appear as *sikka Kāshghar* for that mint as well as for Kunjad, Tirmidh, Khojanda, Bukhara and Taraz. Recorded dates for the term are 677, 681, 691 and 70x H.[49] These dates indicate that Masʿud Bag had been the first to use the term ten years earlier; but at his death in 688 H, his sons venerated his policy and hindered any further development. Master Star, however, continued to explore the role of the state in coinage production.

In accordance with the regional division and the concepts behind it, Tabriz created a new style early in 687 H for its area; that is, the capital, ʿIraq-i ʿAjam and Fars. Two lines divided the obverse square into three portions, which retained the short *shahada*. In the margin, the standard minting format stated the mint at the top, such as *ḍarb-i Kāshān*, with the full date inscribed counter-clockwise in the other three sections. The sites of Kashan, Isfahan, the latter's dependent, Firuzan, and Shiraz replaced only their names in the margin; otherwise, the main type was the same. As often happened, the policy was not completely co-ordinated. For Isfahan, in particular, the shift was difficult; it even started with an old Tabriz reverse, the Hexagon. Even at this late date, fifteen years after abandoning the style, the central mint still had former dies ready at hand. For all, the purpose behind the new design was clearly stated at Kashan in its minting formula with *Sikka-i Tabrīz*/"The stamp of Tabriz" at the bottom of the obverse field as illustrated in Plate 8.1. Given this special pronouncement, Kashan was probably the lead mint for the combined provinces of ʿIraq-i ʿAjam and Fars in implementing Tabriz's authority in the centre.

The new concept of *sikka* expressed itself differently in the west. The word was replaced simply by *bi*/"in". Thus, early in 687 H, Jazira ibn ʿUmar had a limited silver series carrying both *Tabrīz* and *Jazīra* on the obverse margin. These rare coins have been reported only by J. M. Smith. Unfortunately, he did not record the precise marginal and field inscriptions; but they were probably close to the silver type produced in Sinjar at the same time. That margin read *ḍuriba bi-Tabrīz wa bi-Sinjār …*/"Struck in Tabriz and in Sinjar …". It proclaimed that, literally, Sinjar was issuing a coinage shared with Tabriz. However, since the name of the capital gave ultimate responsibility to Tabriz, the first part of the phrase, *bi-Tabrīz*, can be interpreted loosely as *sikka-i Tabrīz*; i.e. under the final control of Tabriz.

As noted in the introduction to this reform, the administration of the west did not return to the powerhouses of old but to the relative newcomer on the Tigris. Although two mints produced in this region, the leading one was probably Jazira ibn ʿUmar since Sinjar had long been predominantly a copper site. In order to

Obverse

Reverse

Plate 8.1 Sikka-i Tabriz type (Kashan) (Date: 687 H; weight: 2.38 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

re-establish itself at this point, however, Jazira ibn ʿUmar once again usurped Mardin's reverse dies. In fact, the reverses of all the mints under its jurisdiction used earlier Mardin dies. Although reusing former dies was not rare with the Mongols, as repeatedly observed in this study, Jazira ibn ʿUmar was particularly prone to recycling dies from other mints.[50] On the other hand, the Jaziran region had its own type of obverse field with *waḥdahu lā sharīk lahu* in the middle of the *kalima*. The same obverse field appeared not only in Sinjar and, presumably, in Jazira ibn ʿUmar but also in Nihawand and Khurramabad, ruled by the Shawankora and Hazarap atabags respectively.[51] Therefore, the jurisdiction of Jazira ibn ʿUmar soon expanded in early 687 H beyond the traditional Jaziran and ʿIraq-i ʿArab territories to Luristan. It was another sign of Arghun's continued efforts to exercise direct control over all locally ruled areas.

In ʿIraq-i ʿArab, Baghdad may not have continued to mint. For the years 687–90 H, only J. M. Smith has recorded any specimens, and they amount to only five coins for the entire four years. Since this output is in sharp contrast to the previous period and he provided no specific details, the available information suggests that most probably Baghdad closed its mint. Certainly, it controlled no other sites in the province because none struck for the rest of Arghun's reign. It seems, therefore, that ʿIraq-i ʿArab issued no money in the revised policy.

In the third region of Khurasan during 687 H, the roving mint at the royal camp of Ghazan, namely Bazar-i Urdu, provided a different rendition of the role of Tabriz. On the top and left segments of its silver design, outside the normal obverse square, was the announcement of *Mizān-i ʿĀdil*/"the Balance of Justice (Equality)". The phrase stated that the coin was a form of justice, specifically natural law; bur it also strongly implied that the money was in equilibrium with that of the rest of the empire and directed by Tabriz.

All three design styles from the regional capitals of Kashan, Jazira ibn ʿUmar and Bazar-i Urdu with their ancillary mints adjusted the mint formula on the obverse. The purpose of the regional officials for doing so was to give an additional written statement of the same message already provided by the universal reverse. As a result, the proclamation on both sides of the coin amounted to everyone that every mint that used the current Tabriz reverse type had coins of the same weight and alloy. The differences in the obverses announced only the regional administrative regions.

Consequently, within the regions, balance was attained first by a drastic drop of output and sites. In Khurasan, there was only one mint. In the centre, there were four; and, in the west, there were two with a link to two more in Luristan. Adding Tabriz to this list, this period had only ten mints; but they were spread across the entire empire.

Period B: specialized trade

Once the diwan had established regionalism in Period A, it began to emphasize subsidiary coinage at home and payments for foreign trade abroad. During this

second era or Period B, it continued to regulate inflation at the same time that it met specific new needs and stabilized the price of exports. Thus, the administration probably solved inflation in two ways: in the first period by reducing output while maintaining a geographical balance at home and, then, in this next period by regulating the kind of bullion which flowed in and out of its domain. Basically then, after the financial directors had created the internal trading market in 684 H and Master Star had avoided unexpected shifts in local bullion flow in Period A, he endeavoured to meet the needs for petty coinage to stimulate local markets and to satisfy the monetary requirements for foreign trade. Each region now looked inside and outside its borders in an effort to stimulate and control local and international commerce. It was predicated on the special pattern or local economy of each area, policies that could only have been attempted in an empire that was flourishing and politically stable. Therefore, as policy moved from regional provincial trade, Period A, to local and international trade, Period B, it caused dramatic monetary changes.

The first of these wrenching experiences was completely uncharacteristic: it was an un-Aristotelian but exceedingly rational approach to coinage. It exploited the economic value of money itself as a commodity. This course could occur only because the new production arrangements enjoyed economies of scale for both material and skilled labour, and it efficiently targeted specific markets for the coinages. In short, making money made money. To start the radical programme, Tabriz and the empire stopped minting completely in mid-687 H.

SUBSIDIARY COINAGE

The first project in the new policy dealt with subsidiary coinage. In Islamic tradition, the royal mint and perhaps regional centres produced coins and denominations in gold, silver and copper. Al-Mawsil had continued to champion this practice until 673 and again in 676 H, at which point Tabriz had tried to follow this tradition, itself, but had failed. Therefore, in general, except for Abaqa's middle reform period and on special occasions, Tabriz never endorsed the Islamic practice. Instead, it specialized in only one unit of one metal, the single silver coin. By doing so, it operated at maximum efficiency through economies of scale in importing raw material, refining it, fabricating dies and testing the finished product. Moreover, administering one linear process was simpler than following the Islamic model, in particular because it required a restricted number of skills. Nevertheless, despite the advantages, in 687 H during Period B, the director expanded the tightly controlled system. Numismatic evidence suggests that he realized that monetary flexibility was necessary to facilitate trade and increase revenue. Therefore, he developed a compromise between the Islamic and Mongol production systems.

This compromise meant a role for other metals. Although silver was preferable for normal trade, copper was needed for petty transactions in local markets. Tabriz met the challenge of subsidiary coinage by having other mints issue copper for it instead of doing so itself. It also did not attempt at this point to regulate it as

tightly as it did silver since it did not put copper on a precise weight standard nor give it the actual stamp of Tabriz.

For the Jaziran region, the director adapted the novel theory of *sikka* developed for silver. The new system was presumably under the aegis of the leading silver producer, Jazira ibn ʿUmar. For the copper, he curtailed the silver legend to just *Tabrīz* and operated at the traditional centres of copper production, namely al-Mawsil and Sinjar. He used the old recognisable figural types that were site-specific. These were the seated monarch holding the crescent of power for al-Mawsil and the ruler in a draped robe for Sinjar. However, al-Mawsil's familiar copper reverse design stated *Tabrīz* on both sides of the coin. Unfortunately, the exact year of this issue cannot be read on these coins, but 687 H is legible on the Sinjar copper.[52] Later in the same year, these designs were dropped and replaced by standard inscriptions slightly modified from the silver model, which continued to state *Tabrīz* on the copper. Another series, but this time in silver, appeared with the hare of Irbil on the reverse and simply *ḍarb-i Tabrīz* on the obverse. However, since it was a quarter, there was no room for any more identification of the actual mint nor the date.[53] Although limited, this programme was a logical extension of the new theory of *sikka* but was, nevertheless, a radical modification of the concept of coin production. The main purpose of this copper and fractional silver from the Jazira was to create monetary flexibility for internal use.

FOREIGN TRADE COINAGE

Foreign trade coinage consisted of all three metals, copper, gold and silver. Copper dealt with trade to Egypt, gold to India and silver with the central steppe. The most unexpected and quite unattested development occurred in the copper coinage. In addition to being used in local markets or short hauls, it also started to be important in long-distance activities. For external trade, the diwan chose Fars as the centre. In 687 H, Shiraz began the *ʿĀdliya* copper series with that word on the obverse and the standard Mongolian/Uighur silver reverse as illustrated in Plate 8.2.

Obverse

Reverse

Plate 8.2 *ʿĀdliya* type (Shiraz) (Date: 687 H; weight: 1.95 grams; metal: copper)

Source: By permission of S. Album. Double actual size.

The name meant "little pieces of equal money". Its role probably was to finance trade from Egypt, doing so by manufacturing money to pay for imported goods, including foreign coin.[54] In fact, Egypt's almost exclusive use of copper for its money in this period may well have begun about this time. At the end of Period B, the *ʿĀdliya* series was phased out. Nevertheless when it was revived from 691–8 H, production expanded enormously, occurring all over Fars, not only in Shiraz but also in Babak, Ta'us, Kazirun and Abu Ishaq, areas with strong maritime links to Egypt through Hurmuz. During the latter period, Fars minted nothing but *ʿAdliya* copper coinage, a phenomenon in marked contrast to the trimetallic currency it had issued consistently if sporadically from 673–90 H.

Another trade currency was gold for use around the gulf and in India. It was issued at Hurmuz, the first port of call for ingoing and outgoing ships on the gulf. It had minted gold with atabag inscriptions in 683 H and did so again now in 687 H; but this was its last Mongol coinage.[55] It was probably not a lack of gold that stopped the programme. In fact, the area had mines of gold, copper and silver.[56] Moreover, gold most likely was coming from Egypt and particularly from India for payments in the highly lucrative horse trade.[57] The programme did not cease either because of adulteration, a strong criticism from Rashid al-Din later. A coin from 687 H was tested at 98.52 per cent fine.[58] On the contrary, the brief coinage ceased for two other reasons. The first was that Tabriz did not control Hurmuz's minting; the local ruler did as perhaps attested by a brief gold issue from Shiraz in 687 H[59] that probably fed into this system. The next and equally important reason was that the central diwan halted the foreign trade monetary policy.

During the same period, Khurasan too adopted a programme based on foreign trade. Like the other areas, this act required it to discontinue minting any Tabriz-style coinage. In contrast to Fars, Hurmuz and the Jazira, however, this area did not deal with unstandardized copper and gold but with regulated silver. Minting evidence suggests that Ghazan transferred monetary affairs from his camp to Naysabur at this point. From hereon, Naysabur had immense influence on subsequent financial events. Led by that city in 687 H, the area included Tus, Khabushan and Bazar-i Urdu. These mints distinguished themselves by adding an animal to the obverse. The images were the falcon for Naysabur, the hound for Khabushan, the hare for Bazar-i Urdu and the lion for Tus, all representing the hunt with one animal assigned to each mint. The inspiration for the styles came from Tus, which had used a bovine in 684 and 685 H. Before it settled on the lion, it had issued two transitional series of, first, a lion attacking a bull,[60] then a seated lion[61] and, finally, a lion prowling right on the obverse having a standard Uighur reverse with the mint between the second and third lines. There is no date for some of the Khurasani types and no mint for the hare; yet despite the variety and occasional lacunae of date and mint, the types were united by sharing the image of an animal of the hunt, as noted in Table 8.1, and the same low unit standard of 2.33 grams. This weight was also the current one in Georgia, namely 13 carats of the 4.30-gram mithqal.

Naysabur was leading Khurasan into an economic revival because the purpose of the animal coinage was probably to organize all Mongol khanates into a unified

trade currency. In effect, Tabriz was attempting to extend its success in Toluid lands to the Jochid and Chaghadaid spheres. Toluid success had been founded on three main tenets: its money was based on silver, had to be centrally regulated and had to be used by tale. This policy left for external payments copper and gold, which were weighed for each transaction. Therefore, since trade in the territory of the various Mongol *uluses* was carried out in silver, Tabriz ordered Ghazan's ministers to adjust his money to fit that of his northern cousins. They did so and presumably increased trade and customs duties with them.

Therefore, it is plausible that, in economic terms, there was a unified western portion of the Mongol Empire at this point. A brief look at similarities with the other *uluses* explains this possibility. Jochid money has not been rigorously studied. However, the few pieces considered for this work revealed random weights for this period. The lack of a standard thereby separates it from coinage in the Toluid and Chaghadaid realms. Rather, the Jochids probably used coins in purses, not individually. In this matter, they copied one of their main trading partners, the Mamluks. However, an average of the Jochid coins studied produced a standard of approximately 1.60 grams, if almost pure metal alloy is assumed. Further, the Chaghadaids, whose coinage has been studied, had a unit weight standard for all mints of approximately 2.00 grams.[62] Seven coins were tested, giving an average purity of 77 per cent.[63] The highest coin, dated 686 H, came from Samarqand and was 80.36 per cent pure. Theoretically, the purity level of this coinage is not statistically reliable because there are not enough samples. Nevertheless, it is the only information available; and, if Chaghadaid coinage mirrored the practices used for Toluid money, quality control was reliable and consistent. Therefore, the results of those tests may fairly represent the mass. Significantly, 80 per cent of 2.00 grams gave the Chaghadaids a coin of pure metal of 1.60 grams.

All the coins under the aegis of Tabriz tested for this study can be considered pure except the Georgian ones under Arghun. Only three Tiflis coins could be examined, but they proved to be on average only 68.6 per cent pure. At the standard of 2.33 grams, calculated from a total of 50 Tiflisi coins, the level of adulteration gives an equivalent weight for a pure Georgian coin, of 1.60 grams so that it matched the value of the money of the Jochids and Chaghadaids. Unfortunately, no coins of Ghazan's animal mints were tested for purity; so the amount of their adulteration is unknown as yet. However, if they followed the Georgian model in alloy as they did in weight, the coinage gave most of Khurasani money a unit value of 1.60 grams of pure silver. Therefore, Tabriz apparently established monetary parity in Gurjistan and Khurasan with the neighbouring Jochid and Chaghadaid territories. In short, the Mongols now had an intra-*ulus* monetary system once the Toluids adopted this policy of a trade currency. At the same time, however, Tabriz kept the Persian (Tabriz) and Arabic (Jazira) areas separate unto themselves.

The pan-Mongol standard, calculated more precisely at 1.61 grams, was 9 carats of the 4.30-gram mithqal. This weight had been achieved by following the traditional method of division: the whole unit had been split by rational fractions.

The east had consistently minted at three-quarters or 18 carats of whatever mithqal it had chosen, so this coinage was simply half that normal weight. The monetary pact was not a revolution, just a rationalization of disparate coinages.

Therefore, the financial officials at Naysabur were seeking a Greater Mongol currency that was a compromise of the different khanate coinages. Ten years of recent experience had encouraged Tabriz to believe in the possibility and the efficacy of a universal standard. It had even ceased minting during this time to make the readjustment for a pan-Mongol medium of exchange. In effect, the currency stressed the importance of steppe trade and a mature Central Asian market system. This development is not surprising considering that Tabriz had originally set its standard to accommodate trade with the west via Mardin. At this period, its growing commerce with the north required substantial modifications to the original system. If Tabriz had continued to use the imperial standard of the Hexagon coinage at 2.83 grams of pure alloy, the Khurasani Greater Mongol currency would have been worth only a little over half of it. Instead, in the new environment, Khurasan's money was worth two-thirds of Tabriz's. This value must take into calculation both weight and alloy. In conclusion, in 687 H, Ghazan's animal issues and the Georgian coinage were actually worth two-thirds of current Tabrizi money but equal to the Jochids' Bulghar/Serai and the Chaghadaids' Samarqand money. Although fraught with many numbers, this reform is another case in which economics provides information about otherwise hidden developments within the Mongol world. The structures were now established on a firmer basis than before, and the time was propitious for a compromise pan-Mongol coinage of equal value.

However, the fact that the Georgian, Chaghadaid, Jochid and Khurasani coinages were lower in weight and alloy than that of the capital made them still accord with the body politic theory of economics. Moreover, since even Ghazan's Khurasani coins were heavier than those of his cousins, his money continued to proclaim his theoretical political rights. The animal series clearly announced his family's royal supremacy over the other *uluses*.

This period concluded shortly, however, at which point Tabriz abandoned all aspects of the trade policy, whether dealing with gold, silver or copper. Unfortunately, for first regionalism and now international trade, the sudden terminations seem explicable only from non-economic factors. Indeed, both policies were successful as proven by their re-instatement later. Moreover, the second development was a brilliant concept that had required masterful planning to use different metals for different kinds or areas of trade. In short, Tabriz had planned to specialize the kind of trade by the kind of monetary metal. It had established the structure, supported it by formulating a comprehensive theory and attained its goals.

Period C: Toluid imperial resurgence

More than likely, the trade policy folded because of a backlash at court or in the civil service as the wazir, Buqa, began to lose power. Certainly in the next period, attention

shifted back to Toluid intra-regional trade as Master Star left office; and a Naysaburi took over. In the next stage, that of Period C, the emphasis turned to internal revival. Such activity meant that the general control of silver moved from Khurasan back to Tabriz. As a result, Khurasan ceased minting altogether; the only area that remained active was the border territory of Dhihistan, which had never completely followed Tabrizi practice anyway. On the other side of the realm, the government revived silver in the two regions producing in Period A, those of the Jazira and ʿIraq-i ʿAjam.

The changes at the core were much less radical than those in Periods A and B as Tabriz went back to a trusted system. It announced the return by modifying both sides of its own coin as illustrated in Plate 8.3. On the obverse, it removed the decoration in *ilāh* but kept the same minting formula. On the reverse, it also removed the stars from the top and by the names. The extra *Arghūn*, the one in Arabic, was moved from the bottom up the right side vertically to make room for a new symbol of Mongol power. The lower portion now held a falcon in profile facing left, ready to take off or alight, with a half sun rising behind it and a star below its raised right wing. This region adopted a theme from the previous Astarabad coinage of 686–7 H that had been briefly picked up in two of Naysabur's early animal types. The mint was etched in Arabic above the falcon's tail. As a result, *Tabrīz* appeared on both sides of the coin. This Falcon–Sun type lasted in the centre from late 687 H till the end of the reign in 690 H.

With the falcon, sun and star imagery, the Tabriz coinage proclaimed a vital surge of legitimacy steeped in Mongol tradition. The Falcon–Sun design arose directly from the Khurasani animal coinages. The immediate appreciation of the image relates to the hunt, which Chingiz Khan himself considered the best training for warfare.[64] More significantly, the reason for employing this design emerges from the relationship of the gyrfalcon to the sun and star. Not only were all three considered lords of the sky, but night and day met at the moment when the morning star and the rising sun could be seen simultaneously. Their intermediary between heaven and earth was the gyrfalcon. Together they heralded the glorious sovereignty of the khan. The symbolism, like all Mongol images, was simple and direct, being grounded in common beliefs.

Obverse Reverse

Plate 8.3 Falcon–Sun type (Tabriz) (Date: 687 H; weight: 2.49 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

In the case of the gyrfalcon, Mongol stories, most relating to Chingiz Khan, explained the role of the bird as the messenger relaying the will of Heaven. In two of them, written soon after the conquests, Heaven proclaimed its blessing on Chingiz Khan's father and father-in-law which, it is understood, would be passed on to the youth. The one concerning Chingiz Khan's father is related by Juzjani, who, however, did not distinguish the person as Chingiz Khan's father's blood brother, the Kerait ruler. Nevertheless, Chingiz Khan had treated him as a true father and had made his first alliance with him.

> On one occasion, whilst following the chase, a bird, the name of which is Tughril, fell into his hands, and his surname [thereby] became Tughrul-Tigrin. No one, at any time previous, has shown that that bird has fallen into the hands of a sovereign; and they held him in veneration, in consequence.[65]

The other tale is found in *The Secret History*. When Yesugei, Chingiz Khan's real father, sought a wife for his young son, the betrothal was heralded with a dream by the future father-in-law the night before Yesugei's unexpected arrival. The future father-in-law related that:

> Up to this time, I have only seen the sun and moon from far away. But last night a white gyrfalcon carried them down in its talons, and settled on my hand. The white gyrfalcon brought them down to me![66]

Later, Chingiz Khan too received the blessing and the exhortation. As related through the perception of a Christian monk:

> An angel appeared to them by the command of God in the guise of an eagle with golden feathers, and spoke in their own speech and tongue to their chief, who was named Cʿankiz. The latter went and stood before the angel in the guise of an eagle, at a distance the length of a bow shot. Then the eagle told them all the commandments of God.[67]

Since the colour white was symbolic of Heaven, a gyrfalcon on silver coinage accorded well with Mongol sensitivities. In fact, in Anatolia, silver coins were called *aqche*/"little white pieces". The bird also had a wide appeal. Much earlier but similar feelings had been manifested on the coinage of the Elymais, who had ruled parts of Fars and Luristan from the second century BC to the early third century AD. An eagle appeared on the reverse beside the king's bust:

> holding in its beak a diadem and ties. In classical and some ancient Near Eastern religions, the eagle symbolized the supreme sky god, often also identified as a creator deity. [The ruler] receives his diadem of authority from an eagle companion of the divinity who confers kingship.[68]

Similarly, such a precise role for the falcon in steppe tradition is clearly apparent from crowns and court regalia, which feature a falcon or feathers at the top of the diadem.[69] Therefore, the falcon on the Mongol coinage was imbued throughout the region with the grant of divine legitimacy.

The significance of the sun on Arghun's new coinage was as important as the gyrfalcon. Immediate proof of its powerful sway is reported in *The Secret History*. After succeeding in his first major battle, Chingiz Khan climbed a mountain to thank the powers that gave him victory. Alone, he took off his hat and belt, holding it in one hand, an act equivalent to disrobing and being at the mercy of his makers. He put his hand to his heart and prayed fervently to the sun.[70] Reverence of the sun was further exhibited by the electors of Ogedai at his coronation: "and they named him Qa'an, and in accordance with the usual custom, all the princes, in service and obedience to Qa'an, knelt three times to the sun outside the *ordu*". After that, the enthronement scene was translated into a sun metaphor by Persian hyperbole, "the World-ruling Emperor seated himself upon the ladder of vigilant fortune, Heaven-assisted and powerful, and the princes [submitted] before the sun of the heavens of greatness and power".[71] At Guyuk's coronation, the princes likewise knelt three times to the sun.[72] Finally, Grigor said of the Mongols that "they paid reverence to the sun as a manifestation of divine power".[73] Thus, these two symbols were enormously significant, conveying the route or medium of legitimacy from and obedience to the supreme deity.

The new Falcon–Sun coinage identified both the source of political power and its messenger although the reason the government felt compelled to make such a strong statement is obscure. Certainly, the medium of the message was strictly Central Asian, symbols of the authority Heaven sent directly to the Mongols. Alternatively, words had stated that concept on the coins of Baghdad in 656 H, on those of al-Mawsil in 676 H and later on Ghazan's 698 H reform type. Before this period, the image of an intermediary had appeared on the Horseman coinage, specifically using a dragon or stork, which were flying creatures. Now with these heraldic symbols of falcon and sun in hand, the Toluids stridently proclaimed to other Mongols their superiority to carry the Chingizid mantle. Moreover, the message was broadcast to other steppe cultures, which recognized them just as clearly as the Mongols did. One recipient group was the Mamluks. In outdoor ceremonials, they had introduced the golden parasol (palanquin) topped by a falcon (*tayir*).[74] For internal court ceremonies, they enshrined the sun on many objects of metalwork,[75] the sun appearing on polished bronze or gold. The symbol was re-enforced by the colour since gold proclaimed royalty in the steppe. As a result, the new Toluid propaganda had several significant audiences.

For all the bombast, however, the Falcon–Sun coinage had a very restricted circulation, notably only in and around Tabriz, through the centre and part of the western region. As expected, the new type spread according to the revised administration. In the west, Jazira ibn ʿUmar and, in the centre, Kashan issued the type, which continued to use the imperial weight of Tabriz of three and a half *dāngs* or 2.47 grams. Moreover, in the centre, the diwan soon re-instated the policy

of alternating mint production so that Hamadhan took over the trunk by the end of the year. Curiously, 23 per cent of the total group of coins in the study found their way as far as Gurjistan and Anatolia, places which did not use the 4.24-gram mithqal. Apparently, after 690 H when they were pulled from circulation around the capital, people continued to use them in the north and further west. Nevertheless, they could do so only because people pared them down to fit the current weight standard of those areas. In the east, Dhihistan/Mazandaran acknowledged the spirit of the new type; but the sector was not furnished dies from Tabriz. Inspired rather by their own vision, Astarabad and Turshiz fashioned a falcon with no sun. The design, slightly different from that of Tabriz, was possibly caused by minting policy: the eastern sites still did not follow the capital's weight standard. Instead, the two cities continued to produce at wide ranges for purses.[76] Nevertheless, since Astarabad had part of the Tabriz design and was minting, it was responsible for and regulated the little of Tabriz's policy that did exist in the east.[77] There was no other production from Greater Khurasan. In conclusion, in this third period, there was no provincial minting except at these five sites, two of which were alternate mints. Although Tabriz seemed to be re-asserting its 684 H universal policy, its tight restriction on production was ominous.

Period D: late 687 H: collapse of the centre

In the fourth stage or Period D, Arghun's success floundered; and the centre collapsed. One sign was that Tabriz issued half unit silver apparently at this time. The weight was half that of Tabriz's 683 H coinage at 2.33 grams. The obverse simply compressed the normal wording, but the reverse actually removed two Mongolian lines, leaving only *Khaghanu/Arghun*/"of Khaqan/Arghun", which allowed room for the Tabriz bird, sun and star as well as the mint. Not only did the lower portion contain the symbol of Tabriz but it was also clearly stated by the name, *Tabrīz*. Another sign of collapse was that Tabriz seems to have farmed minting in the provinces to the highest bidder. The process started late in 687 H; and, for the second time in the year, Tabriz stopped producing. The collapse at the top was reflected in the provinces, which the central officials abandoned as the regional capitals of Jazira ibn ʿUmar, Kashan and Astarabad ceased to function. Buqa seemed no longer in control since all his measures were cast aside.

The only activity was in the Jazira. Mardin, the seat of the Artuqid dynasty, was given or bought monetary control of the west. It pulled out of the storehouse its former 684 H type and froze the pattern: it certainly had precedents for using old dies and freezing types. Acting quickly, it used its new suzerainty to cancel the order that had made al-Mawsil a copper mint. Instead, Mardin resuscitated it as a silver one and provided it with Mardin's 684 H reverse type. Next, arrogating the earlier influence of Jazira ibn ʿUmar over Luristan, Mardin went further by extending its own control into the solid trunk of the empire at Kashan. No coins from 687 H, itself, are presently known to verify the timing; however, the dies were brought to the territory presumably at this time since some of the next khan's reverses at Kashan

were old Mardin dies with *Ārghūn* in Uighur and Arabic script. Mongol minting practice specifically required using up the oldest dies first. When the new khan's officials first struck at Kashan in 690 H, they started with the oldest stock in store. In this case, it was the Tabriz Falcon type. When those dies were used up in 691 H, the minters had to move to the next group that had been left over which was this newly imported 684 H Mardin type. Mardin's control during Period D seems to have been extensive, alarmingly so to some observers such as Rashid al-Din as discussed in Chapter Ten. Moreover, it had an enormous production at this time.[78]

In Dhihistan, minting was also probably farmed to the local dynasty, which now additionally ran northern Khurasan. Astarabad used previous 684 H dies; and its free hand appeared in Damaghan, which minted in 687 and 688 H for the first time in Arghun's reign. Following Astarabad's 684 H policy and perhaps that of the immediately preceding period, Damaghan revived the unit weight of two-thirds of the 4.125-gram mithqal or 2.75 grams and used the Hexagon symbol to state that fact. Jurjan now also joined in, using the 684 H imperial type. It had struck at the Tabriz weight of 2.47 grams in 684 H but now in Sha'ban rose to 2.75 grams. Thus, Astarabad, Damaghan and Jurjan separated from Tabriz by returning to the standard of 2.75 grams.

Amazingly through all of this activity, Gurjistan was unaffected, another sign that it was always a special case and ruled by a competent king. As stated before, it kept its own type and weight from 680–98 H as Tabriz continued its hectic pace of changes. Most of the empire, therefore in late 687 H, exhibited a similar financial situation to that of the vassal Mongol coinages from 645–50 H. In many areas, local dynasts had taken charge of monetary affairs but were granted the right to mint and collect taxes from the Mongol administration.

In this general collapse of imperial authority, Mongol monetary norms were retained only by the provincial government of Arghun's son, Ghazan, in his territory of Khurasan. In late 687 H, Naysabur returned to the original reform. The first to join it were Isfara'in and Khabushan, which picked up at the place they had left off in 686 H. They returned to the Tabriz single unit weight standard of 2.47 grams and minted the Tabriz 684 H type but added Ghazan's name in Arabic below Arghun's in the Mongolian text. The slight change in type was a marked contrast to the other sites, which used old dies. It indicated that Naysabur was active, trying to formulate a new policy. In tandem was Tus, which also raised its weight back to 2.47 grams. On the other hand, it continued to use the lion typ with a slight alteration to distinguish this minting from the previous one by moving the mint to the obverse. Tus continued to maintain some independence from Naysabur, but the other cities sheltered under Naysabur's umbrella.

Period E: 688 H. Diwan to Naysabur

These four periods with their emphases on regionalism, foreign and local trade, the internal market and farming of production occurred quickly in 687 H. Although some policies affected only certain areas, several could have overlapped in time.

The instability of Arghun's government was manifested in the machinations surrounding the downfall of the wazir, Buqa. His defeat forced the imperial financial diwan in Tabriz to take drastic measures to preserve itself, so it consolidated personnel and the little authority that remained to it and moved almost completely back to Khurasan. Nevertheless, the revolutions were not over yet. The arrangements of Period E saw a regrouping in Naysabur.

Before the downfall and turning into 688 H, the situation at first improved somewhat from late 687 H. In Period E, Tabriz directly controlled monetary policy only at its own mint and in the centre. The rebellion in Khurasan and the intrigues around Buqa perhaps stimulated him to assert more authority in Tabriz to save his position. Perhaps for this reason in 688 H, the government confidently showed its optimism by striking gold with former Baghdadi dies.[79] In the centre, Hamadhan managed two subsidiary regions, Shiraz and Isfahan, the latter with its dependent of Firuzan. Further west, the Jazira continued to have local control of its affairs with Mardin as leader and only al-Mawsil as its alternative site.

In the east, matters were taking a more decisive turn. In fact, there seemed to be a resurgence of government activity. Three regions emerged, those of Khurasan, Dhihistan and Shahristana, the latter two gathered up shortly by Khurasan. At first, Greater Dhihistan continued its previous policy and dies probably because tax was taken over the cusp of the year. It had coinage in Astarabad, Damaghan and Jurjan. Meanwhile, Ghazan had gained a competent group of officials with the return of the diwan from Tabriz. They made their headquarters at Naysabur and took control of finances in Khurasan. The diwan flexed its muscles, spreading its control and new type first to its previous scions, Khabushan and perhaps Isfara'in, although no coin has yet appeared from the latter mint. After this success, the director soon enforced his policy on the various sections of the aberrant northern tier, bringing Jurjan in line and then Khabudjama, which replaced Astarabad. As a result, in early 688 H, Naysabur's *Ārghūn/Ghāzān* modification of the 684 H type and the Tabriz weight spread over the whole province. Finally, Bazar-i Urdu probably returned late in 688 H from its rounds in Sharistana. Its unit weight finally returned to 2.47 grams; but the type did not change. It still held the hare with only Arghun's name.

The incorporation of the Dhihistani financial division into Khurasan's was the result of a significant expansion and shift in Ghazan's administration. He no longer accepted Dhihistan as a separate region, and he extended his power for the first time over the mountains into Shahristana, normally Chaghadaid territory. The capital city of Abiward used the emblems of both Dhihistan and Khurasan, those of the falcon and the joint names of *Arghūn* and *Ghāzān*. However, the falcon and *Ghāzān* were on the obverse, which was matched with a 684 H Khurasani reverse with only *Arghūn*. He issued another series there from his camp that also conflated the previous Khurasani insignia. On the reverse, the type had the two names and the running hare, the symbol of the *urdu*. This mint expansion was possible because Ghazan had entered the area. Unfortunately, all this territorial gain was lost later in the same year as Ghazan's military governor,

Nawruz, revolted. Perhaps the governor did so because of this action to tighten control over his border region.

Period F: Naysabur as sole mint, 689–90 H

The next period saw little change in policy in the rest of the empire, even as matters declined further. The centre section stopped minting so that financial activity shrivelled to only Tabriz, Mardin and al-Mawsil. Meanwhile, the crisis in the east grew as Nawruz was able to make alliances with both the Chaghadaids and Jochids. Naysabur was the only mint that continued to produce in Khurasan during this turbulent time of Period F, but it did so only for a while. As the disorder in the region increased, the mint struggled on but was not furnished with new Tabriz dies. Instead, it had to return stolidly to the former 684 H type, copiously imported now from Tabriz's old stores. Then in 689 H, it seems that the Falcon–Sun hubs finally arrived, which probably continued to be used under Gaykhatu for his 690 H issue.

In retrospect, the story in Khurasan for all of these periods tells that in late 687 and through 688 H, Naysabur played out Tabriz's former policies from 684 to mid-687 H and, indeed, repeated it, trying everything it could to control the situation. Therefore, it seems that late in Period D and early in Period E, the mint officials had left Tabriz to move to Ghazan's territory. The move was foreshadowed earlier when Naysabur was the centre of royal activity in the second period of 687 H, that is, during the attempt to integrate Toluid, Jochid and Chaghadaid coinages. Although both Periods B and E were brief in time and limited in scope, the influence of Naysabur on Tabriz during and after 687 H was profound. The most immediate impact had been on coin design. For example, as noted, Naysabur had minted two separate issues, one of a sun and another of a gyrfalcon for the 2.33-gram animal coinage, which it had adopted from Astarabad's 686–7 H design. Then with the abandonment of the Greater Mongol unification policy, the diwan apparently went back to Tabriz, applying the falcon and sun image to Tabriz's coins. The purpose of the message was to re-affirm the status of the hegemony of Tabriz. However with Buqa losing power, the diwan left again for Naysabur. Later, once imperial control returned again to Tabriz after Arhgun's death in 690 H, a number of other Naysaburi styles also re-appeared on the capital's dies, as discussed later. However, Naysabur's monetary prerogatives were not based on Khurasan's status as the province governed by the khan's eldest son. Ghazan was not the heir apparent and did not immediately succeed his father. Instead, the city's influence was founded on its political and monetary heritage, which was only re-affirmed by the last period of 687 H as the capital had collapsed. For barely ten years, Tabriz had tried to incorporate the province into central administration; and for barely two years, Naysabur contributed at least a third of government taxation. However, Tabriz now recognized its separate status at the end of these reform measures. Ultimately, Naysabur's directing role was reflected in a new fiscal policy; the tax revenues and expenditures of Khurasan would no longer be given to the central diwan after this period. The region began to have an independent tax position.[80] Table 8.1 outlines the events discussed above, continuing to the end of Arghun's reign.

Table 8.1 Arghun coinages, 687–90 H. Late Arghun regionalism and capitals

Tabriz	*Centre*	*West*	*East*
Period A: 687			
Ag Ob:[1] Two lines dividing square	Ag Kashan[2] Ob: Divided square *Sikka-i Tabrīz*	Ag Jazira ʿUmar[6] Ob. margin: *Jazīra/Tab*	Ag Bazar-i Urdu[10] Ob. margin: *Mīzān-i ʿĀdil*
	Shiraz[3]	*Sinjār/Tab* Ob. field: *waḥdahulā sharīk lahu*	
	Isfahan[4]	Rx: Mardin dies	
	Firuzan[5]	Sinjar[7]	
		Nihavand[8]	
		Kirramabad[9]	
Period B: 687 H			
–	Ae Shiraz[11] *ʿĀlliya*	Ae (Jazira)*Tabrīz*	Ag Khurasan: Animal types
	Au Hurmuz[12]	Mawsil[13]	Naysabur[15]
	Atabag type	Sinjar[14]	Khabushan[16]
			Tus[17]
			Bazar-i Urdu[18]
Period C: 687 H			
Ag Falcon[19]	Ag Kashan[20]	Ag Jazira ʿUmar[22]	Ag Dihistan
			Astarabad[23]
	Falcon	Falcon	Turshiz[24]
	Hamadhan[21]		
Period D: 687 H			
–	–	Ag Mardin[25]	Ag Dihistan: Astarabad[28]
		684 H type	Damaghan[29]
		Mawsil[26]	Jurjan[30]
		Kashan[27]	Ag Khurasan: Naysabur[31]
			Ghāzān/Arghūn
			Khabushan[32]
			Isfara ʾin[33] Tus[34]

continued ...

Table 8.1 continued

Tabriz	*Centre*	*West*	*East*
Period E: 688 H			
Ag Falcon[35]	Ag Hamadhan[36]	Ag Mardin[40]	Ag Shahristana: Abivard[42]
	Falcon	684 H type	Bazari Urdu[43]
	Shiraz[37]	Mawsil[41]	Ag Dhihistan: Damaghan[44]
	Isfahan[38]		Astarabad[45]
	Firuzan[39]		Jurjan[46]
			Ag Khurasan: Naaysabur[47]
			Ghāzān/Arghūn
			Jurjan[48]
			Khabushan[49]
			Khabudjama[50]
			Bazar-i Urdu[51]
Period F: 689–90 H			
Ag Falcon[52]	–	Ag Mardin[53]	Naysabur[55]
		Mawsil[54]	Tabriz dies: 684 H type
		684 H type	Falcon

Notes

Au – gold; Ag – silver; Ae – copper; Ob. – obverse; Rx. – reverse; reverse description unless otherwise specified.

1 Münzsammlung (Munich) 85104; 2.45 grams.
2 American Numismatic Society 22.216.51; 2.34 grams.
3 American Numismatic Society 1002.1.1243; 2.43 grams.
4 American Numismatic Society 36.41.3; 2.44 grams.
5 Bank Sepah 5:A; 2.49 grams.
6 Iraq National Museum 23545; 2.35 grams.
7 Yapi ve Kredi Bankasi 10416; 2.35 grams.
8 Çunayt Ölcer, private collection; no weight. There is the possible reading of *Sha'ban*. The obverse has the long *shahada* with the mint at the top, and the reverse is from Mardin.
9 American Numismatic Society 00.999.11213; 2.32 grams. It had the Abaqa reverse model with five lines of Uighur. The date is enigmatic because the margin states 'year 2–685' with a Mardin reverse.
10 American Numismatic Society 22.216.398; 2.39 grams. The type has no date.
11 Steve Album, private collection; 1.95 grams.
12 British Museum 1979.12.17.1; 5.88 grams. The ruler's name is on the reverse as well.
13 British Museum 1976.10.20.2; 3.00 grams. No date is given on the coin, which is the figural type.
14 Iraq National Museum 937; 4.36 grams. It is the figural type.
15 British Museum 1922.5.17.35; 2.30 grams.
16 Smithsonian Institution 1981.21.22; 2.24 grams. There is no date.
17 American Numismatic Society, 66.126.60; 2.35 grams. This is a particularly fine example of the lion that shows the swirling hair under his belly and on the rear thighs as well as a collar around his neck held together by a ball clamp. There is no date, but the mint is in the reverse legend. A half series also appeared, which again showed the ball clamp; British Museum 1973.9.16.6; 1.16 grams.
18 British Museum 1885.8.5.25; 2.73 grams, with a loop. There is no mint.
19 American Numismatic Society 74.26.192; 2.35 grams.
20 Münzsammlung (Munich) 92728; 2.46 grams.
21 Steve Album, private collection; 2.42 grams. It is the 684 H type.
22 Istanbul Archaeology Museum, no number; 2.49 grams.
23 Only one coin is known from 687 H. The obverse has *'Alī walī Āllāh* as during all of Arghun's reign.
24 Steve Album, private collection; 2.49 grams. It is a variety of the 687 Falcon type.
25 Yapi ve Kredi Bankasi 10439; 2.48 grams.
26 Iraq National Museum 19082; 2.48 grams.
27 Steve Album, private collection; 2.55 grams. Another example has an Abaqa reverse, but the obverse has the date of 687 H; Ashmolean Museum 61; 2.39 grams.
28 Steve Album, private collection, 2.76 grams. It uses the 684 H type.
29 British Museum 1971.3.20.34; 2.92 grams.
30 Smithsonian Institution 75.46.0102; 2.63 grams. It is the Arghun in Uighur type but with the mint on the obverse.
31 Steve Album, private collection; 2.23 grams.
32 Steve album, private collection; 2.43 grams. It is the *Arghūn/Ghazān* type.
33 Steve Album, private collection; 2.49 grams. Again, it is the *Arghūn/Ghāzān* type.
34 American Numismatic Society 75.73.71; 2.48 grams.
35 American Numismatic Society 22.21.150; 2.25 grams.
36 Bank Sepah 8:C; 2.50 grams.
37 American Numismatic Society 66.126.79; 2.52 grams.
38 Steve Album, private collection; 2.48 grams.
39 Smithsonian Institution 74.25.35; 2.42 grams; silver. There is also copper but with no date. It has the falcon and sun on the obverse and Arabic only on the reverse; Steve Album, private collection; 2.58 grams.
40 Yapi ve Kredi Bankasi 10409; 2.40 grams, with hole.
41 Iraq National Museum 1316; 2.50 grams.

continued ...

Table 8.1 continued

42 Steve Album, private collection; 2.08 grams. It has the falcon and *Ghāzān* on the obverse with *Arghūn* on the reverse.
43 Yapi ve Kredi Bankasi 10424; 2.22 grams, with hole. It has *Arghūn, Ghāzān* and a running hare all on the reverse. There is no mint, but the hare was probably the symbol of the *urdu*.
44 Steve Album, private collection; 2.62 grams. The reverse used the Hexagon type starting from 687 H.
45 Steve Album, private collection; 3.12 grams. It is the Falcon/Arghun type.
46 Steve Album, private collection; 2.72 grams. It is the *Arghūn/Ghāzān* type. There are also halves: for example, Bank Sepah 9;F; 1.20 grams.
47 Steve Album, private collection; 2.44 grams.
48 Steve Album, private collection; 2.72 grams.
49 British Museum 1973.7.4.10; 2.40 grams.
50 Steve Album, private collection; 2.55 grams.
51 British Museum 1957.1.12.22; 2.47 grams. Only the hare and *Arghūn* are on the reverse. There is no mint, but the coin is attributed to Tus at the museum.
52 American Numismatic Society 22.211.162; 2.35 grams, with two holes.
53 Yapi ve Kredi Bankasi 10437; 2.42 grams.
54 Iraq National Museum 7127; 2.45 grams.
55 Steve Album, private collection; 2.25 grams. There is no date and no ruler's name, but it is the Falcon type.

End of Arghun's reign

By 689 H, a major political crisis had developed. Only Naysabur, Tabriz, Mardin and al-Mawsil struck money. The wazir, Buqa, had been executed at the end of 688 H and replaced by Sa'd al-Dawla who, Boyle states, had gained Arghun's "confidence as a financial administrator when sent to Baghdad to restore the economy after the large-scale peculation of Buqa and his brother Aruq".[81] However, there is no numismatic indication of any revival at all in Baghdad between 686 and late 688 H. On the contrary, the entire empire was in turmoil with an important section of the diwan returning to Naysabur. Nevertheless, Sa'd al-Dawla was also praised by a chronicler, Wassaf, a few years later, who said that the wazir had:

> established the administration on the basis of law and justice; that the reforms led to the disappearance of oppression, robbery and thieving, to security and facilitation of the pilgrimage to Mecca, that the finances of the state were controlled and that all the inhabitants benefited from his successful efforts".[82]

In spite of Wassaf's praise, Sa'd al-Dawla did not understand finances, which leads to the suspicion that there was severe conflict between indigenous groups and the Mongols at this time. Probably the roles of each were in contention. The new wazir apparently eliminated the post responsible for monetary policy for the realm since central control existed only in Tabriz in late 689 and 690 H. He shut down Gurjistan and 'Iraq-i 'Ajam and certainly did not revitalize 'Iraq-i 'Arab. Only the farmed area controlled by Mardin with its subsidiary of al-Mawsil managed to persuade him otherwise and still produced. In far away Khurasan, Naysabur retained its independence and held on to Jurjan in the north. Indeed, Sa'd al-Dawla was completely unable to improve the financial situation. Moreover, he seems to have had an extremely rigid attitude towards money, either bordering on paranoia or complete incompetence. In effect, he lost control of every aspect of the coinage. If his restrictive actions and ineptitude were reflected elsewhere, it is easy to understand the reason he was disliked so much that he was executed as Arghun lay dying.[83]

The khan was in his early thirties when he died in 690 H, having been born about the time Baghdad was captured.[84] In the course of his seven-year reign, he had achieved a great deal. He had expanded direct power over most of his realm, for example removing local control from Fars and Luristan. Since money followed politics, Tabriz incorporated almost all areas under its close supervision and extended its taxation measures. He had imposed a single stamp and weight on most of the empire and had raised the weight from 2.43 to 2.47 grams, returning the coinage to the 4.24-gram mithqal. These moves advanced the establishment of a stable economy based on uniform money. However, at the end of his reign, instead of continuing to revive Tabriz's trade activities, his minister, Sa'd al-Dawla, had plummeted the monetary environment back to the early days of Abaqa, to the time in which Tabriz was royal in its isolation and the Jazira was the monetary

giant. The wazir's concern about controlling finances mirrored the old approach of a central depository for the *qubchur* tax; however, in 689 and 690 H, such a situation was untenable. Since the current policy had all mints producing at the same weight, Tabriz no longer had the hegemony of its heavier coin. Finally, his policies led to a fiscal separation of Khurassan from the rest of the empire.

Arghun's reign saw many brilliant innovations under the wazir, Buqa. Only the first succeeded in his lifetime, but the others were later re-instated and further developed. Contrary to our current appreciation of financial theory and practice of the time, the reforms required officials to analyse micro-economic factors in an extremely competent manner. From that study, they could experiment with new theories, which was possible only within a milieu of relative social and political stability. No politician or military general would have been able to comprehend the mathematics of these ideas, part of which was explained in the last chapter relating to real number theory; but the khan and his court were confident at most times to let financial officials establish their own agenda. As a result, there was a monetary revolution that matched the economic strength of trans-Asiatic commerce.

As with many factors of Mongol government, the rule of three held its mesmerizing sway. The successful reform of 684 H lasted only three years, after which the Mongol mind-set required a change. In 687 H, the first three reforms succeeded, but with the fourth the whole apparatus began to sink as political machinations interfered. Rashid al-Din later said that Ghazan Khan succeeded in his reform but that Arghun had not. In a brief sentence, the chronicler only hinted at the turmoil that met the last three years of Arghun's reign.

Notes

1 *Buqa* means "wrestler"; the sport surmounted all others in Mongol eyes even to this day.
2 Boyle, "Il-Khans", 368.
3 Yaqut was a stylistic innovator working in Tabriz. He had several renowned pupils, one of whom was Ghiyath al-Din, Rashid al-Din's son, who later became wazir under Uljaytu. Working at the same time as Yaqut, Ahmad Rumi was also a prominent calligrapher with another school in Tabriz; Qadi Ahmad ibn Mir-Munshi al Husayni, *Gulistāni-i Hunar* (Treatise on Calligraphers), trans. V. I. Minorsky, *Calligraphers and Painters*, Freer Gallery of Art Occasional Papers (Washington, DC, 1959), 57–63. A general article expanding this theme is that of Stephen Album, "Calligraphers Created Dies for Islamic Coinage", *The Celator: Numismatic Art of Antiquity* (February 1988), 1, ff.
4 Perhaps Master Circle formed the plan during 680 H. If so, unfortunately since Abaqa died before returning to Tabriz, he could not initiate the mithqal revision. However, under Tegudar, Master Star continued to implement most of Abaqa's changes. One of these may well have been the first stage of the reform. For example, in 681 H, al-Mawsil adopted the 2.47-gram unit. That move is problematic unless it reflected the continuing development of a state-wide monetary system.
5 Kolbas, "Mongol Money", Graph 12. Arghun Coinages: 683–686 H.
6 *Ibid.*, Graph 13. Falcon Coinage: 687–690 H.
7 *Ibid.*, Graph 9. Mongolian Coinage, Abaqa and Ahmad: 678 to mid-683 H.
8 *Ibid.*, 368.

9 Edward Karl Max von Zambauer, *Manuel de genealogie et de chronologie pour l'histoire de l'Islam* (Hanover, 1927), 38, for the appointment but not the date, which presumably occurred during the 684 H *quriltai*.
10 Steve Album, private collection; 2.45 grams. The mint is given as *Bāzār-i Lashkar*/ 'the market of the military headquarters', but there is no date.
11 Smithsonian Institution 81.27.05; 2.86 grams,
12 Ashmolean Museum 99; 2.41 grams.
13 Steve Album, private collection; 2.47 grams.
14 American Numismatic Society 20.53.87; 2.44 grams. On the reverse, the Mongol bow replaces *sen* at the left of the field.
15 British Museum 1973.9.16.7; 2.45 grams. The reform started there in 685 H.
16 Iraq National Museum 13369; 2.53 grams.
17 Steve Album, private collection; 2.44 grams.
18 Smithsonian Institution 84.1.149; 2.43 grams.
19 American Numismatic Society 66.126.80; 2.53 grams. The date is 686 H. The city was late as there was no minting in 684 H. Instead, minting seems to have started in Sha'ban of 685 H with old Hexagon dies; Dar al-Kutub 3795; 2.74 grams.
20 American Numismatic Society 35.41.6; 2.46 grams.
21 American Numismatic Society 22.216.47; 2.38 grams. Minting started in 685 H.
22 British Museum 1979.16.13; 2.74 grams. There is no date.
23 Steve Album, private collection; 2.44 grams.
24 Steve Album, private collection; 2.23 grams.
25 Iran Bastam Museum 44; 2.21 grams. The reverse is the Tabriz type, but the obverse is non-Islamic.
26 Istanbul Archaeology Museum 2211; 2.73 grams. The date is 684 H. Both sides use the Tabriz type.
27 American Numismatic Society 59.165.223; 2.41 grams. The city issued only in 685 H.
28 Ashmolean Museum 93; 2.35 grams.
29 Iraq National Museum 1314; 2.40 grams. The date is 685 H; there are no coins from 684 H.
30 Iraq National Museum 23559 (A); 2.50 grams. The date is 685 H; there are no coins from 684 H.
31 British Museum 1870.7.9.455; 2.25 grams.
32 Iraq National Museum 23558 (A); 2.50 grams.
33 Yapi ve Kredi Bankasi 10412; 2.60 grams.
34 Münzsammlung (Munich) 85422; 1.19 grams.
35 Steve Album, private collection; 0.58 grams.
36 Steve Album, private collection; 0.59 grams.
37 British Museum 1895.10.6.14; 2.47 grams, with a hole. The obverse has a bull walking left with the *shahada* around the bottom of the margin. The reverse has an octofoil cartouche with four lines of Uighur. Between the lines is the mint on each side of *Arghūn* in miniscule Arabic. In 685 H, the image was moved to the reverse and modified to a milker next to a cow. Above it was Arghun's name in Arabic. The obverse was poorly executed and retrograde, but the mint and date were clear around the edge; Bank Sepah, Arghun:D; 3.87 grams.
38 Lang gives the many specimens from the American Numismatic Society and compiles the dates with a caution that the list is conjectural, 47–8.
39 Stuart Carey Welch, *Treasures of Islam* (Geneva and London, 1985), No. 473; 4.72 grams.
40 Bank Sepah 5:E; 2.86 grams.
41 At the inception of the type in 674 H, only one star was at the top. In 676 H, there were three, which were removed in 678 H but reinstated in 681 H.

42 The city had various reverse dies, mostly outdated ones including Tabriz dies from Abaqa's time.
43 Marw distinguished itself with a bow at the right of the normal reverse. This mint also produced halves.
44 Watson, 1–34. This is the seminal article on the problem, which has since elicited much discussion.
45 Peter Martinez, "International Trade Cycles: Bullion Transfers and Economic Policy in Mongol Western Asia", PhD. diss., Columbia University (New York, 1975).
46 Maqrizi (de Sacy translation), "Traité des monnaies musulmanes" (reprint, 1905), 46–7.
47 The schedule ran as follows: after double minting in 679 H, there was none for either city in 680 H; then Hamadhan minted in 681H but not in 682 H. Kashan minted in 683 H and Hamadhan in 684 H. Thereafter, the format was altered by Arghun's massive monetization policy; so both issued in 685 and 686 H. Abaqa's policy re-emerged in 687 H as Kashan minted with subsidiary mints at Isfahan, Firuzan and Shiraz. In 688 H, only Hamadhan issued with the same subordinate mints. The next two years were quiet almost everywhere in the realm; but, under Gaykhatu, the policy was extended from a yearly to a two and a half yearly modulation: from 690 to sometime in 692 H, Kashan minted. From sometime in 692 to mid-695 H, Hamadhan struck. Then Kashan issued until all sites were quiet in 697 H just before Ghazan's full reform.
48 This general movement was countered by the Mamluks of Egypt and Syria, who tried desperately to keep the old system alive according to the later protests of al-Maqrizi. Their growing number of new expressions for gold and silver coins replacing the traditional terms of *dīnār* and *dirham*, however, indicate that change was occurring even within the Mamluk system. For a simplified but comprehensive overview, see Warren G. Schultz, "Mamluk Monetary History: A Review Essay", *Mamluk Studies Review* III (1999), 183–205; 185–6.
49 Davidovitch, 157–9 and 164–6.
50 The year before, in 686 H, Baghdad had used old al-Hilla dies, which it had retrieved in 683 H from the closed mint.
51 Zambauer, 233–5.
52 As reported by J. M. Smith. Unfortunately, he gave no other details besides the design and did not report *Tabrīz*, perhaps because it was worn or off the flan.
53 Münzsammlung (Munich) 85384: 0.713 grams. Since there is neither date nor ruler, the coin is attributed to this period on grounds of stylistic similarity to al-Mawsil. The full weight of 2.85 grams is close to the original Tabriz unit standard.
54 Remler, 168, for an inventory of foreign gold coins in the royal treasury, more than likely made upon Ghazan's death.
55 Coinage from Hurmuz and Kirman are often confused, in particular because the political history of Hurmuz at this time is not clear. Coin legends even suggest joint rule.
56 *Encyclopaedia of Islam*, "Hurmuz".
57 *Encyclopaedia of Islam*, "Hurmuz", and Nicholas M. Lowick, "Trade Patterns on the Persian Gulf in Light of Recent Coin Evidence", *Near Eastern Numismatics: Iconography, Epigraphy and History*, Studies in Honor of George C. Miles, ed. Dickran K. Koumjian (Beirut, 1974), 319–33; 322.
58 British Museum 1979 12.17.1; grams. It is under the atabag, Sayf al-Din, and dated 681 H by the museum because the coin reads *Sabr Khān Aḥmad*. However, the use of this title for the Mongol ruler is unattested elsewhere. See Nicholas M. Lowick, "Further Unpublished Islamic Coins of the Persian Gulf", *Studia Iranica: Mélanges Offerts à Raoul Curiel* II (1982), 247–61; 251 and 258, for an overview of the political situation.

59 Sotheby Auction Catalogue, May 1986, Lot 609; 4.58 grams. It has the standard Mongolian reverse.
60 The image is on the obverse with the attack scene below the *shahada*, undated; Iran Bastam Museum 7:E: 2.30 grams.
61 Sotheby Auction Catalogue, March 1989; 2.37 grams. The type has a standard obverse but no date or mint. The reverse has the Uighur lines above the lion with *Arghūn* in Arabic at the left of the lion.
62 Davidovitch, Chart 8, p. 93. The approximation results from the fact that her range is in ten-hundredths of a gram while this study uses one-hundredths.
63 *Ibid.*, 101.
64 Juvaini, 27.
65 Juvaini, 936.
66 Lister, 23.
67 Grigor, 21.
68 John Hansman, "Coins and Mints of the Ancient Elymais", *Iran* XXVIII (1990), 1–12; 6.
69 Judith G. Kolbas, "Developments in Jazīran Pictorial Coinage", *The Numismatic Chronicle* 158 (1998), 259–85.
70 *Secret History*, 37.
71 Juvaini, 187–8.
72 *Ibid.*, 252.
73 Grigor, 21.
74 U. Vermeulen, "Une note sur les insignes royaux des Mameloukes", *Egypt and Syria in the Fatimid, Ayyubid and Mamluk years. Proceedings of the First, Second and Third International Colloquium* (1992, 1993 and 1994), *Orientalia Lovaniensia Aalecta* 73 (1995), 355–61; 356.
75 Note especially the incense burner; James W. Allan, *Islamic Metalwork: The Nuhad Es-said Collection* (London, 1982), item 15, 86–9.
76 The one Astarabad coin found for this study matches 18 carats of the 4.24-gram standard. The two coins of Turshiz were lower. One fits the 14-carat standard of the 4.30-gram mithqal or the 16-carat standard of the 4.125-gram mithqal and the other the 14-carat standard of the 4.24-gram mithqal. This range, however, gives a mid-point of 16 carats of the 4.125-gram mithqal. The weights are 3.12 (Astarabad), 2.69 and 2.49 grams respectively. The collection is identified in Table 8.1.
77 So far, no coin from 687 H for Astarabad is known; but the type does occur in 688 H. Given Astarabad's minting record as compared to that of Turshiz, which is not known to have minted before or after this issue, it seems unlikely that the new type would have begun in Turshiz.
78 The plethora of Mardin dies from the Arghun period have been studied by Stefan Nebehay, "Zur ältereneq i Il Hanidischen Silber Prägung in Mārdīn", *Litterae Numismaticae Vindobonenses* 3 (1987), 253–63. This is the only work on die linkages in Mongol coinage.
79 Sotheby Auction Catalogue, June 1987, Lot 927d; 4.06 grams, broken. The attribution to Tabriz is insecure since the broken edge provides only the last letters.
80 Remler, 163. The administrative distinction was first reported in documents during Ghazan's khanate.
81 Boyle, "Il-Khans", 369. This comment seems to be a contemporary reflection of the dramatic downfall of the Juvayni family. Baghdad and its wealth apparently conjured up spectres of great political graft and greed in any governor.
82 *Ibid.*, 370.
83 Boyle, "Il-Khans", 372.
84 *Ibid.*

9

GAYKHATU, BAYDU AND GHAZAN

Imbalance and identity crisis

Gaykhatu, 690–4 H

Arghun's brother, Gaykhatu,[1] succeeded to the throne in Jumada II, the fifth month, of 690 H;[2] but he was not inaugurated until almost a year later. His reign lasted to Jumada I of 694 H, barely four years. Although he also took the Buddhist name of Irinchin Turji,[3] he used both names officially. During the mourning period in 690 H, Gaykhatu immediately re-established the financial diwan according to Buqa's system by recalling Arghun's former team from Naysabur.

The foremost aim of the group was to produce coinage in each region, after which the team was to re-instate Arghun's progressive policies of the early 687 H reform. Therefore, every province soon had silver issues and began schedules of production at alternate sites. The mints were either new or their status enhanced. The diwan refined the system of metal distribution, improved quality control and slightly increased the average weight of silver pieces. Further, the diwan once more paid careful attention to copper. Then, it revived special currencies for foreign trade payments. It also soon made advancements with the gold coinage by striking it on a massive scale for the first time and manipulating it into mainstream transactions. By so doing, the government started another monetary revolution.

Administrative structure

Centres

The main priority of Gaykhatu's financial department was to re-instate the silver coinage. Officials were immediately active in the capital cities of each region, that is of northern Khurasan, ʿIraq-i ʿAjam, ʿIraq-i ʿArab and Fars at Jurjan, Kashan, Baghdad and Shiraz. Second, it was necessary to re-incorporate the southern region because it had been inactive for almost four years. In particular, wealthy Shiraz needed to contribute to the treasury so struck gold with its own legend of *Dar al-Mulk, Shīrāz*,[4] probably in 690 H, after which it was no longer subject to the special tax. Then it and Baghdad led the way in striking silver in the name of the new khan late in 690 H.[5] The type indicated a new emphasis on religion with the use of the khan's Buddhist throne name. Then in 691 H, a year after the death of

the previous ruler and presumably soon after Gaykhatu's actual accession ceremony, the Baghdad mint master seems to have imposed the same reverse style on Tabriz.[6] On the other hand, the obverse hub in Tabriz, probably came from previous stock since nothing was changed except the date and the master's mark in *ilāh* as illustrated in Plate 9.1. The government wanted stability, so the designs returned to recognized patterns, in this case that of the square-in-circle obverse and the reverse in Mongolian with the ruler's name written in Arabic below it. As a result, the falcon and sun motif disappeared from Tabriz and with it the fragmentation of financial policy.

Visible mint masters also emerged for the first time since 687 H as symbols appeared on the obverse and reverse. However, the diwan was divided into two departments so that separate divisions ran Baghdad and Tabriz, each with its sub-regions. The government was not represented in Khurasan, which managed affairs locally. Unusually, the mint masters had short tenure, implying that a type of tax-farming continued. Apparently, once the official had collected that year's revenue, the post was presented to someone else. In the Baghdad division, there was an open circle in *ilāh* in 690 H, a double knot in 691 H, then a circle with spikes in 692 H and finally a dot as affairs settled down in 693 and 694 H. In Tabriz, there was a plain curved trident in *ilāh* for 691 H, an open circle in early 692 H and a modified trident with two loops attached to the outer tines in late 692 through 693 H. Then in 693 H, a die with the plain trident re-appeared with Mongka's *tamgha* placed vertically above *Muḥammad*.[7] Finally, a pellet with spikes came in 694 H. Therefore, there may have been four directors for Baghdad, namely Masters Circle, Double Knot, Spiked Pellet and Dot and four for Tabriz, namely Masters Trident, Circle, Loop–Trident and Spiked Pellet. Notably, two came to Tabriz after serving in Baghdad. Further, apparently Master Trident returned briefly in 693 H. The situation in Tabriz seemed more fluid and under more pressure than the one in Baghdad. Nevertheless, there was still one more individual in Tabriz, namely Master Arabesque, who appeared in 691 H and continued through the whole reign; all of the Tabriz reverses had a plain top but held a vertical arabesque at the right replacing the *sen*. He apparently determined the policy for the reverse or, in other words, the political agenda and was probably the senior Naysaburi official involved in the revival. However, his responsibility was general policy for the whole realm while the mint masters dealt with practical regional matters.

Obverse Reverse

Plate 9.1 Irinchin Turji type (Tabriz) (Date: 693 H; weight: 2.42 grams; metal: silver)

Source: © Copyright The British Museum 1884.7.3.288. Actual size.

Apparently, Tabriz began work under a Mongol director, Master Trident. Then he relinquished the position to the Baghdad director in 692 H. Later, Master Circle left the obverse department, to join the reverse one as a subordinate to Master Arabesque since in late 692 to the middle of 693 H, an open circle appeared below the arabesque. Master Circle's re-placement in the obverse department, Master Trident, left the mint about the same time that he did, suggesting that a crisis engulfed the Tabriz mint at that point. The turmoil was probably due to the strategies and challenges mounted against the introduction of paper money. After that disaster, Master Trident returned at the end of 693 H to start the mint again. Mongka's *tamgha* on his issue seems to highlight the tension between the Mongol and Persian groups since it re-affirmed Mongol control. His efforts succeeded as another possible Mongol, Master Spiked Circle, soon took charge.

On the other hand, Master Arabesque started work in Tabriz at the end of 691 H, and the Baghdad reverse for 690 and 691 H had no decoration either at the top or on the side. Then in 692 H, an arabesque did appear on the right as it had in Tabriz. Therefore, it seems that Master Arabesque visited Baghdad to verify policy. He was satisfied with the situation, apparently; and, in 693 H, the arabesque disappeared as a dot surfaced at the top of the reverse. In 694 H, another dot appeared at the right edge so that Master Dot was in complete charge of Baghdad as turmoil once more engulfed Tabriz. The disorder in the capital took its toll on Baghdad as, later that year, the dots disappeared from the reverse; and, at the same time, nothing appeared in *ilāh* on the obverse. Apparently, at the end of the reign, Baghdad functioned without an appointed director, the bureau working bravely on its own.

The responsibilities and composition of the group was curiously exposed by the transliteration of the Tibetan word *Turji*. The group did not seem to be of one mind since a notable difference existed in spelling Turji with either a *tā'* or a *dāl*. The spelling started with *tā'*, which appeared first in Baghdad in 690 H. Then when Master Circle entered Tabriz, that spelling became standard on its coins for the rest of the reign until Master Spiked Circle arrived from Baghdad in 694 H. He changed the *tā'* back to *dāl*. Earlier in Baghdad in 691and 692 H, the *dāl* had emerged with the arrival of two new mint masters, suggesting that Masters Trident, Double Knot and Spiked Circle were not Persian but Mongol since the harder sound is equivalent to modern Mongolian pronunciation. The *dāl* disappeared in Baghdad in 693 and 694 H during Master Dot's tenure. The spelling modifications and the *tamgha*s indicate the interplay between Baghdad and Tabriz.

In spite of the volatility of managers, there was a continuous development of the new *muhalaq* style of the master calligrapher, Yaqut. It was employed, as with Arghun's legend, only for the ruler's Buddhist name. Gaykhatu chose his throne name of Irinchin Turji to appear on silver and copper and his Mongol name of Gaykhatu to appear in squat, monumental kufic on the gold. The charm of the *muhalaq* script encouraged draughtsmen to employ often only his name on copper, leaving behind any Uighur. By 690 H, the new style connected all letters and cascaded them from the upper right to the lower left. The writing dropped down precariously from the first letters with the tails of the *wāw* and *rā'* wrapping around

the next letters to keep them from falling off the line. This period is probably the end of Yaqut's service to the Mongols since no more coinage bears this distinctive calligraphy. Yaqut died at the venerable age of 89 in 697 H.

Regions

From the previous analysis of mint masters, in this reign, the regional bureaux operated their own sectors. The most significant one was that of ʿIraq-i ʿArab because it re-emerged as an entity for the first time since 670 H. The importance of this event is evident from the die Baghdad produced in Irinchin Turji's name before the official mourning period had finished. Moreover, the mint master was not subject to the one in Tabriz. Far from it, in this period, almost half of the Baghdadi masters moved to Tabriz. Baghdad issued silver every year of the reign, allowing one person to be responsible for each tax collection. In 692 H, the director also travelled to the port of al-Basra and struck silver there.[8] At some indeterminate date but perhaps at this time, al-Wasit issued copper.[9] Thus, ʿIraq-i ʿArab produced silver in the capital and main port and had a copper centre. The new affiliate of ʿIraq-i ʿArab was Fars, which shared the same immediate policy and taxation demands. After its initial gold, Fars also issued silver in 690 H, as noted. This silver, too, used the khan's name before the end of mourning. However, it did not have the sanction to make new dies. As a result, Shiraz issued silver in 690 H with *Gaykhātū* engraved in Arabic vertically on the left side of an Arghun reverse die.[10] After that, it stopped minting silver to take up a different programme in copper. Within this Farsi division, a subordinate one dealt with Kirman. Previously, Kirman had revolted; but its submission terms put it under the jurisdiction of Fars. As a result, it joined the copper programme in 691 H.

Although matters in Kirman, Fars and ʿIraq-i ʿArab were the first priority of the diwan, slightly different control was necessary in the north. Tabriz had relinquished Fars in order to run the Jazira, and Master Arabesque started his task in trustworthy but poor Jazira ibn ʿUmar. In 691 H, it used an old Arghun Falcon reverse die;[11] but, in the same year, it received a current one from Tabriz with the arabesque[12] and finished the next tax year in 693 H with it.[13] Master Arabesque's official in the region was Master Dot. Since all coins had a point in *ilāh*, this director rose to prominence in Jazira ibn ʿUmar before he transferred to Baghdad in 693 H, taking with him the Tabriz spelling of *Tūrjī*. Master Arabesque was less generous with Mardin, imposing a strict mandate on it because it had been the specialist mint-farmer for the previous three years. He demanded that the city issue the current silver Tabriz type in late 691,[14] 692 and early 693 H, all with the Tabriz reverses with a plain top, an arabesque to the right and the spelling of *Tūrjī*. The obverse had a star in *ilāh* in 691 and 692 H but a dot in 693 H. Therefore, the local Master Star was replaced by Jazira ibn ʿUmar's rising Master Dot. However, both sites stopped minting once Master Dot moved to Baghdad because, during the last half year of Gaykhatu's reign, no more issues are known from this region. The governor of al-Mawsil, Baydu,

stood out against any authority from Tabriz. He apparently was not subject to tax since the city struck no money during the reign.

In ʿIraq-i ʿAjam, the province managed as best it could, dividing minting between Kashan and Hamadhan. The capital of Kashan made silver with the Tabriz Falcon reverse in 690 H,[15] and then with an Arghun reverse from Mardin in 691 H,[16] as explained in the previous chapter. Then later in 691 H, it came under the aegis of Baghdad and acquired its dies with the spelling of *Dūrjī*.[17] Finally in 692 H, it used a Tabriz reverse, stating *Tūrjī* with an arabesque, perhaps acquired from Master Arabesque's visit to Baghdad. The obverse provides no clue to its local status because there is nothing in *ilāh*. Kashan struck all these types to a weight standard of 2.47 grams with a large sprinkling of the Hamadhan standard. After Kashan, Hamadhan took over in late 692 into 694 H. First, it had to use 684 H-style Arghun reverses in 692 H[18] until it received the current type in 693 H.[19] The dies probably came from old Baghdad stock at first since Turji was spelled with a *tā'* and then a current one with a *dāl*.[20] In 694 H, Hamadhan had a *Tūrjī* issue,[21] again like Baghdad. On the reverse, these dies also had a dot below the arabesque on the top and at the right as did Baghdad. All along, Hamadhan struck at 2.33 grams or 13 carats of the 4.30-gram mithqal. Moreover, it probably complemented its silver with a hexafoil copper type with *Dūrjī*, probably struck in 691 or 692 H because of the spelling.[22] The factors of both metal and weight show that it enjoyed a different category from Kashan, but both worked with Baghdad. Like ʿIraq-i ʿArab, this region also had one copper site for part of the reign.

In the east, matters took a different turn. Although Gaykhatu's nephew, Ghazan, had been a contender for the throne, the khan did not consider him a threat. Therefore, he had left Ghazan in charge of the east, which continued to confront the insurgent, Nawruz. The latter's rebellion against Ghazan caused havoc until 693 H. In order to strengthen his position, Ghazan re-engaged his previous approach to Mongol steppe trade. He was not, however, helped by Tabriz. His trade policy meant the eastern province remained divided into two spheres.

In the northern section of Greater Dhihistan, an alternate production policy began. In 690 and 692 H, the regional mint was Jurjan[23] while, in the opposite years of 691 and 693 H, it was Astarabad.[24] Otherwise, thee two mints were not in tandem with each other whatsoever. For the two mints, the storage facility supplied dies as different as their weights. Jurjan had 684 H dies while Astarabad used the borrowed Naysaburi type of Falcon–Sun. The coins of Jurjan were not highly regulated and seem to have been destined for purses, the area apparently maintaining the former Astarabad payment practice. The average weight was 2.81 grams, so the Jurjan official also seemed to be re-asserting the old imperial Tabriz division of two-thirds of the 4.24-gram mithqal. On the other hand, Astarabad had a different policy. In 691 H, it continued its late Arghun weight of 2.75 grams; but, in 693 H, it climbed to 3.23 grams. This weight was a return to 18 carats or three-quarters of the 4.30-gram mithqal. By then, Astarabad clearly had moved away from Tabriz's influence.

Better formal recognition of the khan existed in the southern tier of Khurasan. The region identified itself by re-introducing the hexagon cartouche and placing

Irinchin Turji's name inside it. However, the design no longer signalled the weight of two-thirds; for the symbolism had been abandoned. The hexagon design, which had been revived by Damaghan in 687 H, Period D, was now incorporated on the coinage of Naysabur,[25] Isfara'in,[26] and the new sites of Sabzavar[27] and Jajarm,[28] all with no date. Meanwhile, Naysabur also issued quarter silver coins.[29] However, like most mints in the realm, those of Khurasan also did not produce after 693 H. For the southern area, the unit standard was once again 2.33 grams or 13 carats of the 4.30-gram mithqal. Naysabur had established the special status of the east in 687 H as a semi-independent financial area, and these issues re-confirmed its status during Gaykhatu's reign.

If Khurasan's single unit silver was adulterated to the same presumed level of the previous animal coinage at the same weight, the coin had a purity of 1.61 grams of pure silver or 9 carats of the 4.30-gram mithqal. Therefore, by the beginning of 693 H, Khurasan and Astarabad operated on the same mithqal. The Astarabadi issue was 18 carats; and the Khurasani adulterated one was worth 9 carats, making the ratio 2:1. Thus, except for Jurjan, both areas had adjusted again to the standard of the Chaghadaids and Jochids. This tie with the north signified that Ghazan had probably revived trade connections. His success was perhaps one factor that forced Nawruz to cease hostilities since the general had been supported by the Chaghadaids.

Neither dies nor administrators from the central mint ever arrived in Greater Khurasan. Ghazan was well aware of this lack of interest even before the revolt was over and the region stabilized in 693 H. However, the gulf did not prevent him from fulfilling his duty. He gathered the revenue from the regions of Qumis, al-Rayy, Mazandaran and Khurasan, which he had stored in Damavand, and proceeded towards Tabriz. However, in spite of his repeated attempts to present himself to the khan, Gaykhatu refused to meet him. Finally, once Ghazan reached Abhar, Gaykhatu told him to head back. Refused recognition for his success, Ghazan turned around with his revenue and returned to Khurasan.[30]

In spite of the strenuous efforts within each region to steady the empire's financial system during Gaykhatu's reign, the previous review shows that the realm was not united. The east with its own types and weight standards was not directly included in Tabriz's monetary administration. Indeed, Tabriz ran only the Jazira. It was ʿIraq-i ʿArab that managed Fars and ʿIraq-i ʿAjam. On another front, Anatolia produced almost nothing of its own type and weight, continuing a monetary decline which had started earlier under the governorship of the khan. The same situation occurred in Gurjistan, in which there was very little activity. Only one coin is known, which seems to have been struck in 691 H.[31] Thus, there was a serious split in the empire.

Internal market: petty currency

The main currency of silver has indicated the regionalism of the realm, which illustrates that the financial department was returning to the aims of early 687 H. The diwan also revived the other main features of that period by minting petty

currency. This money took the form of copper, which was issued under three programmes. For internal activity in local markets, the government ordered a balance of regional production. As already noted, Khurasan had a small silver issue while ʿIraq-I ʿAjam had Hamadhan and ʿIraq-I ʿArab had al-Wasit as copper producers. In addition to the above series, the capital, Tabriz, authorized three issues of copper in its name that were probably struck at Sinjar. The first issue had a reverse with the top two lines in Uighur of *Khaghanu/deledkegülük* and *Irinchin Tūrjī* in Arabic below. The obverse had the *shahada* in the margin and *ḍarb-i Tabrīz* in the field.[32] Then the next one had the same obverse and reverse with the exception that, in place of Irinchin Turji's name, there was a lion striding right and looking backwards. On the last series, the reverse was the same; but the obverse had a quatrefoil cartouche around *al-mulk li-llāh* with *Īrinchin Tūrjī* in Arabic below. The date of 691 H was in the margin of this one with *Tabrīz* at the top.[33] Although the issues were linked, they had no parallel elsewhere for the patterns. The closest reverse designs come from a later copper lion type of Ghazan from Sinjar, which may have been drawn from this type. The similarity of the later series to this one suggests that Sinjar was the mint for both issues. This legend of *al-mulk li-llāh* for petty coinage had last been seen in Naysabur in 687 H; and, later, Naysabur had abandoned it to simply reduce the Tabriz unit inscription to fit onto smaller flans. As a result, the inscription of the first copper type further indicates that a Naysaburi official directed Tabriz's agenda. Therefore, since historically Tabriz did not strike copper, a number of points suggest that the dies were actually employed in Sinjar. First, Sinjar usually struck only copper, rarely silver. The exception in 684 H expired quickly as its alternate mint, Jazira ibn ʿUmar, took over control for silver in 685 H. Then, both minted silver in 687 H with *Tabrīz* on their dies. Later in the same year, Sinjar and al-Mawsil then struck copper with *Tabrīz* in their legends. As a result, a strong and very recent precedent existed for Sinjar to list *Tabrīz* on its coinage. In 691 H, the diwan probably extended the new theory of *sikka* to allow Sinjar to state *Tabrīz* without worrying about identifying itself. Further, at this date, its twin mint, Jazira ibn ʿUmar, was issuing silver, which would compliment the copper. Thus, in this arrangement, Tabriz seems to have authorized the actual striking of copper in another mint.

Beyond the regional petty currency sites at Hamadhan, al-Wasit and Sinjar, the market at Gaykhatu's *urdu* also struck copper. Its issue used the standard Tabriz 691 H silver dies at Bazar.[34] However, there was no sign of a mint official; the ascenders of *ilāh* were too tight to allow any decoration between them. This omission probably indicated that Bazaar was not directly supervised by Master Trident. Thus, available dates for internal copper show that it was produced in 691 H and perhaps in 692 H at one site for each region.

Foreign trade

The diwan also pursued other aspects of the policies of 687 H. The most notable one was foreign trade coinage. These monies appeared in copper and silver; the

latter already discussed under Khurasan. For copper, the area of production was again in the south. In 691 H, Fars[35] and Kirman activated the *ʿĀdliya* system once more and were exceedingly busy doing so. Kirman did not provide a date for its activity nor label its series *ʿĀdliya*, but it had three different types and organized its own die production. The first issue was adapted from a combination of old Tabriz silver dies with a curved hexagon and the *Qā'ān al-ʿĀdil* legend. The other side copied the same cartouche and put the khan's name inside, spelling the last part *Dūrjī*.[36] Next, the curved hexagon moved to another type that was somewhat more current since the reverse had inside the hexagon two lines of Uighur with *Inrinchin Dūrjī* below them; and the obverse had the *shahada*.[37] No issue had a date, and the first two did not have the mint but were probably from Kirman. Finally, the last type did have the mint, in which the obverse said *fī balad/Kirmān* with a dot at the top, displaying the ultimate authority of the Baghdadi mint master. The reverse had *Ininchin* only with no Turji.[38] The Fars mint, on the other hand, re-employed the same design introduced under Arghun except for changing to Irinchin Turji's name in the centre of the reverse. Fars also probably made its own dies but did not feel it necessary to send any to Kirman. Fars stopped minting in 692 H, the government apparently busy preparing Kirman. Nevertheless, Fars picked up again the next year in Abu Ishaq and a few years later under a new khan. Thus, the massive system was unique to the region; and, although barely established in 687 H, it now came into full operation.

All of these copper issues that came from Sinjar, the ʿIraqs, Bazar and Fars/Kirman from 691 through 693 H seem to have been sanctioned by Tabriz. All used normal silver dies or, in the case of the lions of Sinjar and the *ʿĀdliya* system of Fars, followed the central policy of 687 H. Therefore, copper production was not a local decision but came under the general auspices of the silver department in the capital.

Even though all metals were included in the trade policy, gold gained greater prominence than before. Apparently, a new department was created at this point. In 691 H, Master Trident introduced a policy to issue gold on a regular basis. At the start of the programme, he produced sizeable quantities of it in overlapping series. In the first type, the obverse had no date but did have the mint written vertically at the right edge. The field had *Gāykhātū* at the top and then *al-ḥamdu li-llāh/Lā ilāh illā Āllāh/Muḥammad rasūl Āllāh/ṣalla Āllāh ʿalayhi/wa sall/am*, and the margin contained a sura.[39] The gold reverse was a close replica of a silver type first produced in Naysabur in 685 H, the hub probably brought to Tabriz by the director. In particular, the arrangement had only four lines of Mongolian script with the mint, *Tabrīz*, in Arabic between the second and third lines. Further, the complete coin matched the Naysaburi habit of omitting dates.

After this output, there was a second obverse that replaced the sura with the full minting formula. Starting at 12 o'clock, it read *ḍuriba hadhā al-dīnār bi-madīna Tabrīz sana aḥd wa tisaʿīn wa sittama'ia*/"This coin was struck in the city of Tabriz, year one and ninety and six hundred".[40] As the first gold issue of Gaykhatu to contain a date, it nevertheless still used the obverse hub of the former type since

the main field was the same with the mint on the side. Therefore, *Tabrīz* was listed twice on the obverse. At the same time, the reverse continued to use the eastern silver type with the mint in the middle. It also had a vertical arabesque at the right edge. Therefore, the mint appeared three times on the second emission. It was not necessary to employ such an overstatement; instead, this was just another instance of the Mongol method of manufacturing general dies on which specific information was added only at striking time. Moreover, this was a new programme that grabbed whatever dies it could; but soon all was put in order. Finally, a second reverse die appeared, this time probably made in Tabriz, on which the name of the mint disappeared, leaving it only on the obverse.[41] The use of a silver die for the first issues of gold as well as most copper shows how fast the mint wanted to re-establish itself and, in addition, some of the difficulties in doing so.

The gold production deserves a closer examination. The sequence of the above combinations of the dateless and then dated obverses with the two reverses can be derived exclusively from their change of weight. The undated type averaged 4.67 grams.[42] On the other hand, the dated obverses averaged 4.28 grams.[43] Therefore, the second and third series form one group, for which the remedy spanned almost one carat of the 4.48-gram mithqal. This span suggests that the weighers were working within the 4.48-gram mithqal. Therefore, this mithqal seems to have continued through the intermittent gold that Tabriz had issued from Abaqa through Arghun.

The different weight groups determine the chronological order of the dies, but the significance of the weight change emerges from the fineness of the gold. In the first series, the average purity was 78 per cent with a probable intended fineness of 80 per cent. This gave the coin a practical value of 3.73 grams or the equivalent of 20 carats of the 4.48-gram mithqal. The dated series had the same fineness, so the weight reduction put the coin at 18 carats or three-quarters of that mithqal. The reduction thus placed gold on a recognized accounting basis of whole fractions, making it possible to calculate gold for exchange operations and tax purposes.

Given this standard rate of purity, Gaykhatu's reform of gold for the market cannot be detected by the usual indicator, a radical change of type, but simply by the weight reduction. At the time, chroniclers decried this change because they thought it allowed wanton spending. They misunderstood the innovation, but their sentiment prevailed since the experiment was terminated by the end of the year. The reform was a necessary step, nevertheless; and the government made new adjustments to ensure its success four years later.

Overview

As the previous analysis has shown, Gaykhatu finally re-established the financial diwan. It revived the reforms of Period B in 687 H to distribute metal production among various mints. Copper for the realm came from the ruler's *urdu*, at Sinjar in the Jazira, at Hamadhan in ʿIraq-i ʿAjam and at al-Wasit in ʿIraq-i ʿArab while, for export payments, it came from Fars and Kirman. On the other hand, gold was

funnelled to and issued only at the imperial capital, Tabriz, while silver came from alternate mints in the Jazira, ʿIraq-i ʿAjam, Greater Dhihistan and, for unknown dates, from six mints in Khurasan. Master Arabesque had built on the foundation of Arghun's policies from mid-reign modifying and enhancing them with gold. The resurgent Naysaburi group successfully re-established central finances but relied heavily on regional administration. Nevertheless, the pre-eminence Tabriz had achieved in the mid-680s was hard to copy. In fact, Baghdad, once re-instated, held responsibility for more of the regime than Tabriz did, a position that was to continue.

Under Gaykhatu, the unit weight standard of silver remained the same; but the Tabriz masters significantly enhanced quality control. In particular, they started by returning to the method used in Arghun's reform coinage of 684 H. This change meant a radical alteration from the production techniques of Arghun's last series, the Falcon type. The weight distribution graphs of the silver coinages of Arghun and Gaykhatu in Figures 9.1–9.3 depict the development.

A significant peak in the shape of the curve indicates that a certain quantity of coin was ordered from a precise amount of bullion. The quantity was determined by affixing a unit weight to each coin. Restrictions existed on the number of coins that could be struck above or below the unit standard, both in number and weight. This method allowed faster production than the remedy system did. Using limits created sharp ends, which indicate that each coin had to be individually weighed so that heavier and lighter ones could be removed for re-rolling and re-cutting. In that system, therefore, minting could be continuous but sporadic as old coin or small amounts of bullion came to the mint, perhaps from individuals or local

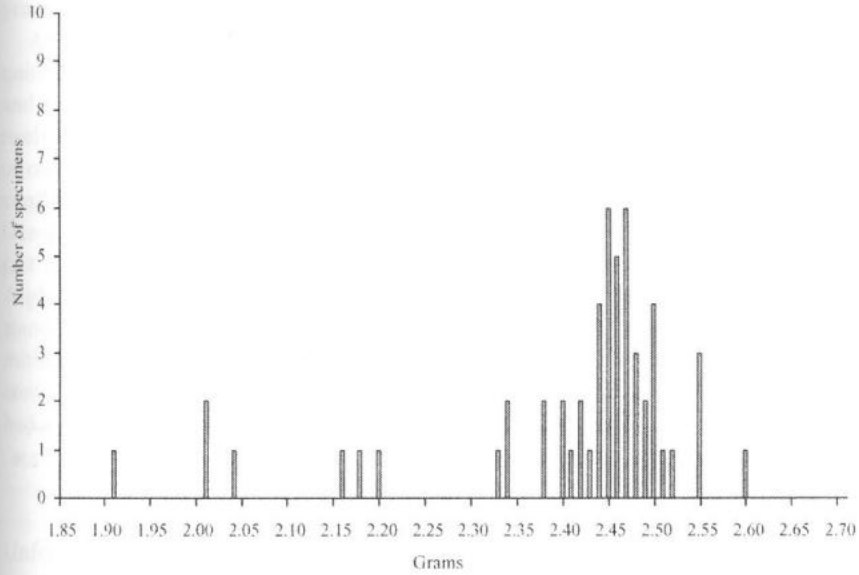


Figure 9.1 Tabriz silver distribution histogram: Arghun reform

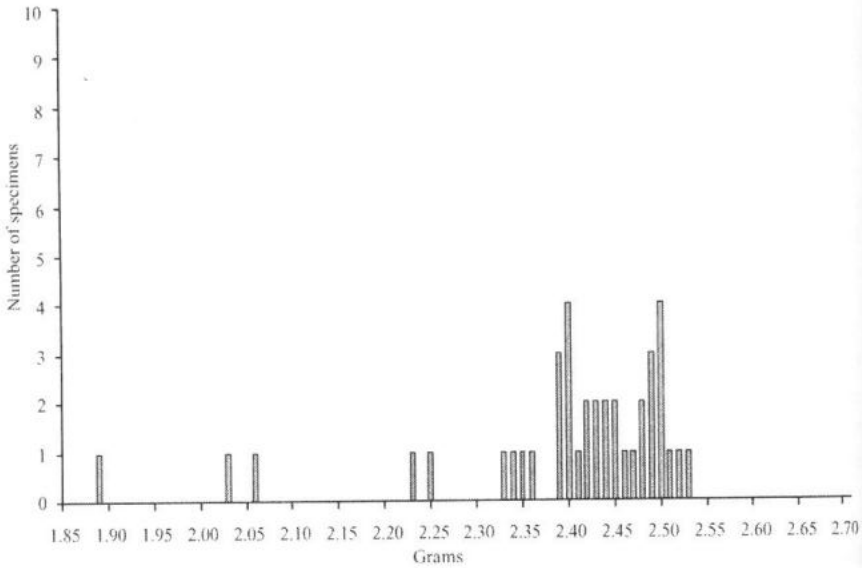


Figure 9.2 Tabriz silver distribution histogram: Arghun falcon

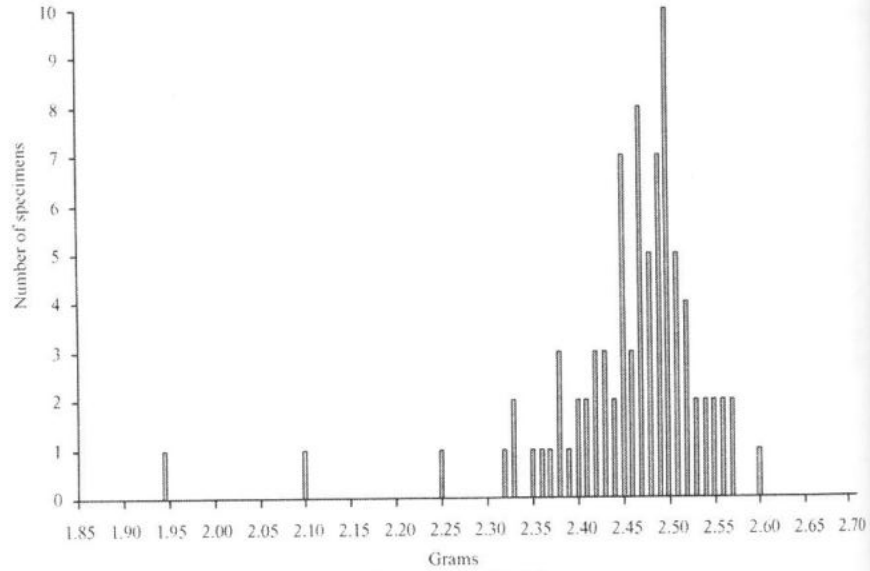


Figure 9.3 Tabriz silver distribution histograms: Gaykhatu

government agents. The histogram of Arghun's reform coinage of 684 H shows a strong combination of the two methods, perhaps as a failsafe, while that of his Falcon coinage indicates that the mint used only the remedy system. Then, under Gaykhatu, the government seemed to control precious metals much better than before as it based policy more on the amount of bullion rather than solely on the individual coin. There were problems adapting the bullion system as exemplified by the peak. If the standard is calculated by the mid-point of the limits, which was the technique used to determine previous ones, the frequency peak is 0.03 of a gram above the standard.[44] This increase can only be understood if originally the mint wanted to raise the unit weight by the same amount that Arghun had done in 683 H. Almost immediately, however, the increase was rescinded; so the weighers pulled the heavy coins that exceeded the remedy for the old standard. Further, Gaykhatu's coinage has a higher peak than Arghun's reform money has; and the curve has a left skew. The skew is produced by culling the heaviest coins right from the start, at the mint itself. However, analyses of other coinages that can be monitored by documentary evidence show that the skew starts below the standard.[45] Therefore, it seems that Gaykhatu's weighers culled only the very heaviest. By the time of Ghazan's reform, there is no left skew, suggesting that no culling took place. However, from that reform, only the bullion system operated, producing a rounded, high peak with low tapering ends. Until then, Gaykhatu's coinage shows that, although the weighers were no longer concerned solely with the limits themselves, they could still closely observe them. Thus, in this period, the Tabriz mint continued to change its quality control methods to gain exceedingly precise pre-industrial standardized coins. This coinage was, indeed, better than best. In effect, Gaykhatu's diwan was compensating for the poor coinage from the last years of his brother's reign.

Although production methods had advanced, practical use of the coinage was quite fluid. The coins that fall outside the limits on the graphs show that people and the government accepted in payment a wider range of money than the mint itself was allowed to provide, a practice which permitted the continued circulation of old coin. This policy was set by the 684 H re-monitization,[46] its effectiveness confirmed by smaller graphs of specific types. Old coins, with the exception of Georgian money, had been almost completely gathered up and re-melted then, not just restamped at their former weight. The circulation pattern of the money of Arghun and Gaykhatu can be deduced from the specimens clipped to meet the standards for later periods.[47] Because these clipped coins stayed on the Tabriz mithqal, the graphs show that Tabriz's specific coins moved mainly within the central portion of the empire, emphasizing that even in later periods the empire had a regional nature.

Zanjani and the collapse of the state

Unfortunately, it was politics that impinged on the economic recovery and the returning stability of the realm. At first, it was the Mongols who were quiescent as

the Persians jostled for position, perhaps re-playing the scene from Arghun's last years. In particular, the machinations of the chief wazir created havoc. Zanjani had plotted against Gaykhatu before his enthronement. Nevertheless, not only had the khan pardoned him, Zanjani had also petitioned for and received the post of wazir, which he had received before the end of 691 H. Smooth-talking and extravagant with gifts, he remained in charge even through the first few months of Ghazan's rule in 695 H.[48] The most common complaint about him from the person who continued Bar Hebraeus' history was his excessive liberality; he and Gaykhatu, according to the author, were so generous that the state became bankrupt.[49] This criticism was in sharp contrast to Juvayni's criteria for a leader. Just such magnanimity had been the crowning glory of Ogedai; the criticism implies a significant improvement in economic sophistication.

Unfortunately for Zanjani, gold production ceased about the time he came to power, indicating that he could not have been liberal with it for long. Perhaps because of his disappointment, he tried to gain control of the mint, an inconceivable objective for any other wazir. Much activity stopped in 692 H, and his actions possibly contributed to the turnover of masters in Tabriz. Only Master Arabesque could have opposed the wazir, but he was out-flanked. Trying to remove the power of the Naysaburis, by Shawwal of 693 H, the wazir seems to have revoked the license of every mint. The action was not unprecedented because Arghun had done the same both in 687 H and at the end of his reign. This new dismissal, however, allowed a radical policy innovation, the introduction of the *cha'o* paper money of China.[50] Although orders for extending its circulation were sent to the provinces, the money was tried for two months in Tabriz alone and, finally, after a general strike of eight days, was quickly abandoned. Once more, a wazir did not understand money. The effect of such a foreign intrusion was reported by a contemporary:

> And Tabriz, which was the royal city of the Mongols, remained like a desolate ruin. Men fled therefrom and dispersed themselves about the country, and only a very few people were seen in the streets (or, bazars). After the prosperity which (Tabriz had enjoyed) words are not able to describe the famine, and scarcity, and hardship which arose therein. For men would not consent to use the contemptible slips of paper, and they clung to the use of money. And the people cried out against the *Sahib Diwan*.[51]

With like sentiment, Ghazan refused to adopt it in the east, denouncing it while he was in Mazandaran.[52] This action reaffirmed his isolation from the khan and thereby reasserted the independent financial status of Greater Khurasan.

Out of desperation in 693 H, perhaps in the last months of the year, the mint was re-established by an earlier director, Master Trident, who emphasized his Mongol credentials with the imperial *tamgha*; and coins were struck again. Then, the last mint master, who probably was also Mongol, came from Baghdad to issue

money for 694 H. However, the damage had been done; the Tabriz group had been eliminated, and the master did not effectively direct policy throughout the realm. In fact, in 694 H only Tabriz[53] and Baghdad[54] issued money. The regime had suffered a crippling blow.

Baydu, six months of 694 H

The chaotic political and financial situation came to the forefront at this point as the Mongols challenged their own regime. Baydu[55] was a cousin of Gaykhatu but had suffered a number of personal grievances from the khan. He was not the only one to be at odds with the ruler, so he felt he had support as he plotted Gaykhatu's murder. The twenty-four-year-old khan was killed in Jumada I, four months into the year of 694 H. Contrary to normal Mongol practice at the peaceful death of a ruler, Baydu quickly mounted the throne one month later. However, his six-month reign was turbulent because of a succession struggle with Ghazan.

A civil war should only have added to a collapse of government. However, the wazir had stopped meddling; and monetary policy remarkably resumed its course and then remained unaffected by political events. As with Gaykhatu, Baydu's reign was inaugurated with issues of all three metals. Such a practice had become traditional, showing an accommodation to Islamic tenets. This reign in particular provided a true test of Arghun Aqa's reform criteria for proper financial procedures. In spite of severe political strains, the court showed that it had a coherent theoretical basis and internal structure. Therefore, following the 687 H pattern, policy was divided according to the metal, first copper, then silver and finally gold. Curiously, each metal displayed the government's view of both its heritage and its future.

The heritage: copper

The past was reflected in copper. No new arrangement emerged as production of the metal continued as before. The stasis mirrored both the on-going political vacuum in general and the poor leadership at the top. Baydu had been the governor of the Jazira,[56] and the Mongol general of powerful ʿIraq-i ʿArab had joined him. Therefore, al-Mawsil and Baghdad were his first centres of support. However, in the hasty organization of his reign, they issued only copper. For expediency's sake, al-Mawsil pulled out its old-fashioned Hulaguid obverse silver type used until 670 H and combined it with a current Baydu silver reverse from Tabriz.[57] Baghdad did not fare much better: it also had a copper issue based on Tabriz's silver.[58] The use of silver dies on copper had been the practice under Gaykhatu, showing that in effect the diwan tried to maintain some part of previous policies even in restricted circumstances. This continuation was manifested also in Fars, which issued *ʿĀdliya* copper and gave prompt compliance to the current ruler by making all new dies in his name.[59] The same programme of speed and conservatism seemed to apply to Baydu's Tabriz copper. One reverse had to use the Mongolian silver type with *Īrinchin Tūrjī* in the Uighur lines and *Baydū* in the Arabic one,[60]

but the second copper series used the silver type with *Baydū* in both lines.[61] As for the obverse of both, they were similar to other copper types and mints; but there is no complete correlation with any of them. Therefore, they may have been modelled on anachronistic dies used elsewhere in the empire. For example, one of the copper styles was reminiscent of Tabriz's 687 H Period A silver. These anomalies create the possibility that the copper coins may once again not have been minted in Tabriz at all, particularly considering the conflation of dies and the probable history of the production site of Gaykhatu's copper. Rather, these cobbled-together coin dies may have still been the property of Sinjar; but there are not enough adequate specimens to determine the true role of Tabriz. The coins with the Tabriz *sikka*, the *ʿĀdliya* series and regressive types in Baydu's former province constituted his copper coinage.

The present reality: silver

The current state was reflected in silver, which best tested the political and economic strength of the regime. Inside *ilāih*, there was a symbol derived from the Mawsili top decoration on Hulaguid coins, an almost closed crescent resting on a base line. Thus, there was a new mint master probably secured from al-Mawsil. In Tabriz, he appropriated the dies from stock for his first production of silver, incongruously using the former dies of Irinchin Turji, but inscribed *Baydū* below in Arabic.[62] Then he ordered only the most necessary modifications: these included the date on the obverse and Baydu's name in both Mongolian and Arabic on the reverse.[63] This type was minted only in Tabriz.

In Kirman, Baydu installed a new ruler, Qutb al-Din Shah Jahan. Unfortunately, the vassal experienced an even shorter reign than Baydu did, staying in power for only two months. Nevertheless, Qutb al-Din regained independence from Fars. He issued silver to pay for his appointment by using the Tabriz reverse but, on the obverse, put his name under the *shahada*[64] similar to Arghun's 684 H atabag types. As a result, only two mints issued silver, one of which was a vassal and the other the capital.

Future plans: gold

The regime's vision of a bright future was reflected in gold. The single gold issue was minted in Tabriz and is of special interest since it closely followed the last type of Gaykhatu. The reverse style changed only the name and removed the top arabesque, leaving the vertical one at the right edge. Although practically indistinguishable from the 691 H type, this issue had two major notes of interest. First, the obverse gave some highly significant information through the date. Most specimens managed not to have an aligned stamp on the flan; suggesting rapid turnout; but, on those that did, the margin said *sana khams* .../"year five ...," i.e. 695 H.[65] Second, gold was struck at a different mithqal, that of 4.24 grams. At 80 per cent purity of each coin, that level registered at 3.53 grams or 20 carats.

Therefore, the coinage was a curious mixture of a new mithqal and an old carat level. However, like the previous reduction, this weight change was a revolution. This time, gold was on the same mithqal as silver. Placing different metals on the same standard was important in itself but also meant that the ruling silver coin weighed seventy per cent of the pure gold one. Therefore under Baydu's Mawsili finance director, Tabriz finally accommodated itself to an integrated Islamic system of three metals with the normal relationship of calculating exchange values between the dirham and dinar. As a result, gold coinage made another step on the way to finally entering the monetary system as a practical means of exchange, no longer signifying exceptional events or tribute from vassals.

The date on the gold is evidence, therefore, that copper and silver had been the immediate priorities of the mint master. At first, Master Crescent had quickly borrowed previous dies for both metals but had later provided each with its own type: the copper in particular had random styles. Then, after about six months, he had organized the new programme for gold: the coins were intended for the next year, probably to be introduced ceremonially in the New Year celebrations of Muharram. Unfortunately, Baydu lost his head one month and eight days before 695 H; and his celebratory coins seem to have been spirited away. If there had been a peaceful transition of rulers, these pieces would have constituted part of the next ruler's reserve treasury. Regrettably in this case, the turnover was tumultuous; and the coffers were empty according to the actions of the next administration.

As limited as the financial programme was, Master Crescent succeeded in generally maintaining pre-established policies. However, the east, controlled by Baydu's rival, Ghazan, had issued no money at all. As a result, only the silver of Tabriz filled the purses of tax collectors and merchants. Since the normal silver coinage of the empire was basically reduced to one place, only that money gave the impression of a central authority and a viable monetary structure. In short, that one mint declared there was still a state.

Ghazan, 694 to mid-696 H

Background

Ghazan,[66] the elder son of Arghun Khan, took the throne from Baydu at the end of 694 H. His reign can be divided into two sections, that of consolidating power from late 694 to the middle of 696 H and that of forming a new administration and asserting himself against the Mamluks of Egypt and his Mongol neighbours from 696 to his death in 703 H. This section will deal with the formative period from 694 to mid-696 H. Three important factors affected this period of Ghazan's rule: the absolute chaos of his realm, the death of Khubilai in 693 H, which had occurred more than a year before his accession, and Ghazan's early religious training.

Khubilai had never controlled the entire empire. In the heartland, he had been embroiled in a succession battle with his younger brother, Ariq Buqa; and then the capital, Qara Qorum, was dangerously close to the rebellious Chaghataids. As a

result, for strategic reasons, he had ruled from northern China. He was finally enthroned in 1264 AD with the supreme Mongolian title of *khagan*; and he announced the beginning of the Yuan Dynasty in 1272 AD, the official start of a new Chinese empire. He continued to claim that he was the supreme Mongol ruler, but his death in 1294 AD put to rest this fiction. His demise was a symbol rather of the steady dissolution of the Mongol Empire, and it added a crucial problem for Ghazan. The lack of a senior figurehead and the major disarray from civil unrest in Greater Iran required Ghazan to review whatever cohesive elements remained in his realm. In 694 H, he found that Mongol etiquette and the Mongol universal message, which had served so well in the past, were no longer sufficient bases for political stability. Rather than drawing on the fact that he was the western representative of the Toluid family, Ghazan began to look for local means of legitimizing Mongol rule. As Khubilia had incorporated a number of Chinese practices in his area, Ghazan also ceased being completely loyal to Mongol culture and instead focused on the customs of his own territory. This action reflected the reality of the financial situation. Tabriz's coinage system was no longer supplying much of the Mongol realm; instead, it produced only local currency, albeit for his own extensive empire. That locality had Persian as the common language, and its traditional protocol preferred highly inflated titles. Therefore, in this period of desperate re-orientation, Ghazan adopted Persian titles and dropped Mongolian as an official language. He thereby abandoned part of the *jardag/yasa*, departing from long-cherished Chingizid norms.

In addition to Persian culture, his territory was predominantly Islamic in religion. This conflicted with the second important pre-reign factor, his early religious training. Arghun Khan had given both of his sons two different spiritual educations. The move was in keeping with steppe tradition but did indicate a change in direction that ultimately permitted a rationale for his sons to modify old Mongol customs. In general, the Mongol rulers of this area had remained shamanists, retaining that part of their Mongol background longer than their cousins had, the Jochids and Chaghadaids. The exceptions had been Tegudar/Ahmad, Arghun's uncle, and Gaykhatu/Irinchin Turji, Arghun's brother. Ghazan was raised as a Buddhist and his brother, Uljaytu, as a Nestorian Christian having the baptismal name of Nicholas. Such wide-ranging exposure to various religions subsequently permitted Ghazan as an adult to be inclined to accept Islam. Nawruz, a long-time and ardent convert to Islam and Persian culture, was the catalyst. Ghazan agreed to his encouragement, and the conversion ceremony occurred in the Alburz Mountains at the beginning of Sha'ban in 694 H. Ghazan, his amirs and probably Uljaytu became Muslims at that time. Thus, Ghazan took the title of *sulṭān* and the Islamic name of *Maḥmūd* halfway through his rebellion, three and a half months before he became ruler.[67]

As Ghazan's forces advanced on Tabriz, many of its people defected from Baydu and joined Ghazan's cause. As a result, Baydu fled towards Nakhchavan; but Nawruz captured him and brought him back to Tabriz. There, Nawruz expedited Bayd's execution on 22 Dhu al-Qa'da of 694 H; later on the same day, Ghazan entered the city.

Thirteen days after reaching Tabriz, Ghazan left it on 5 Dhu al-Hijja to winter in Arran. Soon thereafter, within Mongol custom, he married one of his father's wives in an Islamic ceremony. She became his favourite wife, bearing him two daughters; and later, he chose to die in her presence. The marriage, in contradiction to Shari'a restrictions, is one of the first suggestions of the measure of his recent conversion to Islam or the measure of understanding of its chief adherents around him. At about the same time as his wedding, Ghazan appointed Nawruz as his second-in-command for the entire empire. This reflected the position Nawruz had held previously under Ghazan in Khurasan after the rapprochement.

Then quickly following his wedding, Ghazan was formally enthroned on the Qarabagh plain sixteen days after leaving Tabriz or seven days before the end of 694 H. The enthronement ceremonies on the steppe, however, were attended by religious persecutions in the cities. Both Christian and Buddhist buildings were attacked and many destroyed. These activities seem to have been the work of the avid and energetic convert, Nawruz, rather than Ghazan.[68] Once similar mob action surfaced again during Ramadan of 697 H, after Nawruz had lost favour, Ghazan did not tolerate it and punished the organizers.[69] The 697 H events, combined with his marriage, showed that Ghazan could not shake off Mongol religious eclecticism.[70] Apparently, that tradition was initially subsumed by his perceived need to identify with and gain support from the majority population of his territory.

The division of Ghazan's reign is clearly detected from two factors of the coinage: the change of the reverse with new messages and a change of unit weight. These points are important because the obverse during both periods, in contrast to the reverse, remained essentially that adopted under Ogedai with mint and date added. Only two items of the obverse were modified in the second part of Ghazan's reign, the geometric border and the word division of the lines. However for the initial period, the design carried on with the square-in-circle Tabriz style from 650 H. As for the inscription, the standard version of *Lā ilāh illā Āllāh, Muḥammad rasūl Āllāh* continued throughout both periods.

Therefore, the reverse most clearly identifies the two periods. In the first period, there was a major transformation in which both Arabic script and Persian titles replaced the Mongolian inscription. The new language addressed Arabic, Persian and even Mongol segments of the population. As the following analysis will show, however, the attempt to reach the diverse interests in the empire did not allow a cohesive administration. Ghazan was khan in name only; he did not have a central government or a policy position on the state of the realm. All his experience in Khurasan availed the empire little at first.

Nawruz

Nawruz was not only a proselytizer for Islam he was also the king-maker. Following in the honoured footsteps of his father, Arghun Aqa, Nawruz had been the military

leader of Khurasan during Ghazan's governorship. However, unlike his father, Nawruz had rebelled against the ruling family. For five years from 688–93 H, using the Chaghadaids as allies, he had been a rapacious and disturbing force in Khurasan;[71] but, upon his reconciliation with Ghazan, he had become a powerful ally. Relying heavily on him at the beginning of his reign, Ghazan deputed Nawruz to arrange administrative details in Tabriz, "including the raising of a loan from wealthy Tabrizis, the treasury being, as was to be expected, completely exhausted".[72] Nawruz was the main proponent of the Persianate policy according to the numismatic evidence. He was in overall charge of the realm, including financial stability; but he was also responsible for political security. The latter duty demanded both the elimination of any residual support for Baydu in the usurper's former province and the integrity of Khurasan from Chaghadaid advances. Once his efforts achieved their main goals, Ghazan could finally hold a *quriltai*. After the traditional meeting, Nawruz decided to leave for Khurasan in the middle of 696 H. His departure was followed by his subsequent execution on 10 Shawwal, two and a half months before the end of that year. It was Nawruz's removal from power and ensuing death that ended Ghazan's first period of financial and political activity. Nawruz's directives had created a strident deviation from previous practices, which the second period counteracted with a return to and improvement upon the evolutionary trends of the Mongol financial system.

Administrative structure

Immediately upon his appointment at the end of 694 H, Nawruz set up a skeletal administration that moved quickly. First, he dealt with the mint at Tabriz, himself, it seems, as detailed shortly. However, Nawruz also had to develop a programme that took into account disrupted local conditions throughout the realm. Given the need for unquestioned and assured loyalty, that imperative may have been one reason he soon put someone else in charge of money at the very end of 694 H. The official was closely allied with Nawruz and was probably his brother, Laksi.[73] The agent began work in Tabriz and then quickly set off for the areas formerly governed by Baydu to secure their subservience to the new khan. Laksi had been a general in the Baghdad area who had gone over to Baydu[74] but could now be trusted to exhibit family loyalty. He knew the region well and completed his task in one year, travelling incessantly. Although he succeeded in assuring the allegiance of the west, he did not establish any bureaucracy to allow central control from Tabriz. In contrast, he seems to have issued only general directives and probably farmed authority for coinage[75] in order to provide immediate revenue. Further, the local agents had to find their own material to work with, and different mints produced their own types. A similar situation existed elsewhere in the realm, each province issuing according to a local framework. In short, the detailed analysis that follows identifies several government divisions that were not co-ordinated by Nawrtuz. Ultimately, the lack of structure, clearly evident from Laksi's exercise, made security difficult.

Laksi's tour

Establishing security, from the evidence of the coinage, required the personal attention of Laksi from 694 until at least the middle of 695 H. His route can be adduced by the movement of the aberrant spelling of *Qazān* rather than by the dies themselves, as had happened previously in Mongol minting.

At the beginning of the transformation, Laksi gained some quick training in Tabriz in 694 H as he launched the second type with the spelling of *Qazān*.[76] With that type to use as a model, he went to Mardin in 694 H to issue silver with *Qāzān* in the bottom of a ten-year-old 684 H die:[77] like Tabriz, the city still had Arghun dies left over even after issuing Irinchin Turji silver. Then, in early 695 H, Laksi went to visit Ghazan near Arzanjan, according to the copper discussed shortly. Following that stop, he left for Baghdad, which also struck *Qazān* silver.[78] In Fars, Ta'us then put the word on a dateless copper issue.[79] Later, Kirman had the spelling and the name of the new local ruler on its tiger silver.[80] Subsequently, sometime within 695 H, Hamadhan produced silver with this spelling[81] and, then, Kashan on dated 695 H silver.[82] These cities indicate, therefore, that Laksi moved quickly from Tabriz to Mardin in 694 H, to Arzanjan at the beginning of 695 H, then skipping al-Mawsil entirely went further south to Baghdad in early 695 H, east to Fars, further yet to Kirman and returned through Hamadhan and Kashan to Tabriz late in 695 H. With the completion of his trip, his immediate duties were over and any influence he had in Tabriz also melted away. Thus, the new mint master in early 696 H spelled *Ghāzān* properly on Tabriz's silver coinage. Indeed, the subsequent activity of the mints he toured shows that financial administration was almost an afterthought to him. The little organization that existed emerged from the former roles of the mints, not from central goals or his leadership.

Tabriz

Tabriz should have had a guiding role, but its power was severely restricted. It focussed on a limited and local trimetallic policy of gold, silver and copper issues with the predominant emphasis on silver. Nevertheless, one aspect that emerged in this period, which had implications for the future, was the new activity at Arzanjan. In general, the capital experienced haphazard decisions that further illuminate the piecemeal structure and Ghazan's tenuous control over the empire.

To start production in Tabriz, Nawruz's new diwan copied the Islamic system of trimetallic currency immediately in 694 H. This policy had been attempted earlier and failed. Petty coinage, however, had emerged at the beginning of a reign if the state was in crisis. Gold, on the other hand, had become a celebratory requirement for the beginning of a new reign or reform. However, at this point, all of the coinage portrays another side of the story. The challenges facing Ghazan and the problems he had to solve in his later reforms emerge from the details of the metal, inscriptions and weight of his first period coinage.

Financial policy with regard to gold is not immediately clear since, unfortunately, only one such coin from Tabriz is known. The piece weighed 4.37 grams and had

no date, retaining the common Khurasani practice. On the obverse, there was no decoration in the short *ilāh*; indeed, except for the top line and the sura, the obverse die was precisely the same as the one for Baydu's gold. In turn, the words of the top line and the subsequent arrangement of the legend still followed Baghdadi gold and silver from Hulagu's conquest. The gold reverse, however, was completely new and Ghazan's alone. It read *Pād-i Shāh-i Jahān/al-Sulṭān al-Āʿẓam/Qazān Maḥmūd/khallada/mulkahu/ḍarb-i Tabrīz*.[83] The first line was a Persian title while the second one was Arabic because of the addition of the definite article *al*/"the". Except for that article, the field was exactly that of the last Ghazan silver issue of 694 H, discussed below. The close similarity between the two, therefore, permits the gold coin to be attributed to that year. It was a brave attempt at normality. However, gold was exceptionally rare; and none was struck outside Tabriz.

Since the distribution of metals generally followed previous practice, copper was first produced at Sinjar. Probably in late 694 H and early 695 H although the issues have no date, Tabriz authorized one series that read *Sulṭān-i Islām/Ghāzān Maḥmūd*,[84] a short version of the first Tabriz silver issue of 694 H. The obverse has a lion strolling right with a full blazing sun behind it, and the margin held the *shahada*,[85] following the preceding type of Gaykhatu. The margin also contained the name of Sinjar, but the last digit of the date is off the flan. The field inscription is comparable to the first silver, so it was probably made in 694 H. Some were struck over flans carrying the 662 H Sinjar image of a ruler in a draped mantle. At the same time, Tabriz was switching copper production from Sinjar to a new site, eastern Anatolia. As production moved, a different copper series had a reverse with the simple announcement of (off the flan) */Qazān Qān/Maḥmūd/ḍarb-i/ Tabrīz*.[86] This reverse was like undated copper from Arzanjan and Inja since they also had *Qazān Qān/Maḥmūd/ḍarb-i Ārzanjān*[87] or *Injā*.[88] Because these *Qazān Qān* copper types are so similar, presumably one agent was in charge of their production. The date of his activity can be derived from a comparison of the orthography and vocabulary with the silver.

In all of these legends, the use of *ālif* and *qāf* is strange and erratic. The spelling *Qān* is a variant of *Khān*, but it could have one or two *ālifs*. The word on the copper, with only one *ālif*, had also appeared on Mawsili coinage from 660–3 H as *Qāʾān al-Āʿẓam/Mūngkā Qān*.[89] The second point of interest was *Ghāzān* itself. The unusual orthography of *Qazān* was similar to Tabriz's silver for the period of 694 and 695 H: in both, a *qāf* appeared instead of a *ghayn*, and no *ālif* existed between the *qāf* and *zāʾ*. However, the silver did not have the words *khān* and *Maḥmūd* together; rather, *Maḥmūd* occurred only in 694 H and the title of *khān* arrived later in 695 and 696 H. Therefore, the copper with *Qazān Qān* seems to represent the transition between the two periods, which would place it in early 695 H.

The purpose of this new copper consortium was to create liquidity in local markets in Adharbayjan and eastern Anatolia, that is around Tabriz, Arzanjan and Inja. The mint at Inja, meaning "royal domain",[90] seems to have been equivalent to the former mints of *Bāzār* and *Ūrdū*, probably travelling with the ruler as he

moved between Arzanjan and Tabriz. Nawrua was thereby developing a new kind of peripatetic bureaucracy that was to blossom in the next period. At this point, his innovative method of administration was tested on copper. Nawruz ordered the trial to begin in eastern Anatolia in order, initially, to remove reliance on people from Baydu's region and then to benefit from the proximity of Ghazan's *urdu* for close supervision. The organization operated like Tabriz had as Nawruz soon appointed a subordinate for the territory. This agent also lacked high chancery skills, according to the evidence of the *qāus*, because he probably had a dual role, like Laksi, of both securing Ghazan's authority in the area and controlling the mints. In the beginning phase, the centre could well have been Arzanjan, not Tabriz, because it was close to mines. If so, this meant that Arzanjan organized copper coinage for Tabriz just as al-Mawsil had done for Arghun and Sinjar for Gaykhatu. Later developments reinforce this possibility so that, viewed over eight years, copper production for the capital moved north from al-Mawsil to Arzanjan. This 695 H consortium also provided a base for Anatolia's imminent entrance into central civilian administration.

The capital retained its closed preserve for silver and did not require a new structure for it. In particular, the weight of Ghazan's early silver coinage did not change from Arghun's 683 H reform; and the die was struck at only one point, Tabriz. As usual, silver was the dominant metal in the city, and the only one of the three to continue further into 695 and 696 H. At first in 694 H, Nawruz could pull old obverse dies from the treasury dating back to Arghun's period since the obverse had not been altered. Such economy was hastily lost, however, as he quickly ordered a new reverse: one that was a revolution, flying in the face of all previous Mongol coinage. It had Ghazan's name, replete with titles, and abandoned the Mongolian language completely. The legend received high priority, the first issue apparently appearing immediately in 694 H. The one coin known from that issue read .../ *Sulṭān al-Islām/Ghāzān Maḥmūd/khallada mulkahu*.[91] The top line, which is off the flan, may have had *Pād-i Shāh-i Jahān*, which occurred on the next Tabrizi issue. Nawruz accomplished this task with the help of a local director, who put a star in *ilāh*. The inscription was probably instigated by Nawruz because it stressed Islam and had Ghazan's new Muslim name and local title. Moreover, it had the correct spelling of Ghazan's name, showing Khurasani influence. After succeeding in this major innovation so early in the reign but still in 694 H, Nawruz gave the capital's finances to a trusted Mongol or Uighur, perhaps Laksi, because the spelling of Ghazan changed. That person followed Nawruz's thinking but softened Ghazan's name and modified the format of the titles. The new reverse replaced religious titles for political ones to read in Persian *Pād-i Shāh-i Jahān/Sulṭān-i Āʿẓam/Qazān Maḥmūd/khallada mulkahu/ḍarb-i Tabrīz*/"The Emperor of the World/The Great Sultan/Qazan Mahmud/May his authority be preserved/The mint of Tabriz" . The type is illustrated in Plate 9.2.

Laksi, too, was served by a local mint master. He removed Master Star of the first issue and replaced him with Master Double Loop. At first, the new director used an old Baydu die as the mark in *ilāh* was a crescent balanced on a base line.

Obverse Reverse

Plate 9.2 Sultan Qazān type (Tabriz) (No date; weight: 2.17 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

Then, he quickly made a new obverse with his mark. It was modified from Irinchin Turji's curved trident with loops, consisting of only the upper half of a circle with small loops at the ends. However, since it was close to the styles of two previous masters, perhaps he was a former subordinate.

Master Double Loop had only weeks of tenure because Laksi was away for the next year. In 695 H, a new chief appeared, probably a Persian. He was announced by a new decoration in *ilāh*, that of three circles touching each other in a triangular shape similar to the later Ottoman motif. On the reverse, three circles also formed a triangular decoration over the middle of the second line, suggesting that he was the only official running the mint. His new reverse inscription lasted for more than a year into 696 H. Stamping his authority on the situation, the director changed the imperial and territorial Persian title of "the Emperor of the World" back to the religious view of political power as "the Emperor of Islam". After that modification, in the next line he transferred hierarchy from the Turkish claim of "The Greatest Sultan" to a Persian one of "The Greatest King of Kings". As a result, the reverse read *Pād-i Shāh-i Islām/Shāhān Shāh-i Āʿẓam/Qazān Khān/khallada mulkahu/ḍarb-i Tabrīz*/"The Emperor of Islam/the Greatest King of Kings/Qazan Khan/May his authority be preserved/The mint of Tabriz".[92] This mint master dropped Arabic for Persian grammar and put the term *Islām* back in the top position. In this way, the reverse expressed in the top line, rather than in the second one as before, the Islamic aspect of the new regime. At the same time, Ghazan's newly acquired Turkish title of *sulṭān* and Muslim name of *Maḥmūd* were dropped. Therefore, the Persian aspect of the realm became the dominant message on this coinage. In secondary place, the role of Islam was registered but balanced with the Mongol title of *khān*. For the first time, the word *khān* appeared on the coinage of Tabriz; and it was also the first sign of Ghazan's coming revival of his own Mongol heritage.

In his search for identity, so well expressed in his fluid array of titles, Ghazan also returned to his Khurasani penchant for animal symbols of authority, originally

used by his father and him in 687 H. This time he chose the lion image.[93] A few examples from the coinage could probably be mirrored in other media, but he never took the title of *arslan* or *bars* as the Turks enjoyed doing. One example is the Sinjar copper with lion and another is the Kirman silver with a tiger. Symbols notwithstanding and in spite of the new director, there was hardly any activity in Tabriz after the beginning of 695 H. Indeed, the early years of Ghazan's reign produced very little coinage at all. There are but three silver coins known from Tabriz for all of 695 H. For the next year of 696 H, only one coin is known, which had a different reverse die. The legend is the same, but the spelling reverted to *Ghāzān Khān*. There was no decoration in *ilāh*, but an arabesque at the bottom of the reverse perhaps indicated a secondary official.[94] Therefore, after one year, Master Tri-circle seems to have died or been dismissed and not replaced by Laksi. Indeed, Nawruz's spelling re-appeared at this point. Obviously, the office still suffered from rapid turnover that had begun after Buqa's downfall.

These few samples of reverse types from Tabriz for the period of 694–6 H show a development in the spelling of Ghazan's name which provides information about personnel and operations. At the very first point, his name was spelled as *Ghāzān*. Then from late 694 H, the name was rendered as *Qazān*. Then in 695 H, the order must have been given to spell it with a *ghayn*. However, "it" was unclear. Rather than the *qāf* of *Qazān* being converted to a *ghayn*, the *khā'* of *khallada* was changed to a *ghayn*.[95] Later, a second order modified the spelling again. The *khā's* of *khān* and *khallada* were reinstated; and not only was the *qāf* of *Qazān* replaced by a *ghayn* but also an *ālif* was put before the *zā'*. All this finally produced *Ghāzān*. That form had been the original spelling on his coins of 687 H, and it now found its way permanently to Tabriz. The orthography was eventually sorted out by the various officials in time to appear early in 696 H.

The spelling of *Ghāzān* was on Ghazan's Khurasani coinage under Arghun, on his first coinage of 694 H and all coinage after 696 H. The brief deviation to *Qazān* lasted for over a year; i.e. from the last few days of 694 H through 695 H; so there was a special cause for it to appear during this period. That reason was probably Nawruz's brother; certainly the person in ultimate authority was more aware of status symbols than of literacy. Monumental orthography was a difficult matter not easily mastered by a general turned bureaucrat, who could stumble over pronunciation symbols. The problem was the same one that had plagued the *qāf* at the beginning of Mongol coinage in both the eastern province and al-Mawsil in the west. In those cases, the people at the heart of creating the political image of the ruler were obviously not scribes or cross-cultural savants but perhaps field-tested strategists who could not spell properly according to the conventions of the time. Similar spelling proclivities during this period suggest that Laksi presumably ignored Ghazan's Naysaburi court. Otherwise, the same Khurasani orthography would have prevailed. Moreover, the spelling changes do not correlate with the decorative mark in the centre of Tabriz's *ilāh*; therefore, Laksi's decisions overshadowed those of the mint master of Tabriz. According to the numismatic evidence, the mint master was responsible only for Tabriz; and the most stable

one was appointed at the beginning of 695 H but lasted for only that year, a situation reminiscent of Gaykhatu's time. Nawruz and his appointed brother, on the other hand, had overall responsibility from the last days of 694 into early 696 H, during which the khan was *Qazān*.

The provinces

Elsewhere, Nawruz's government was also a local affair. Laksi's tour and Arzanjan's copper network were but tenuously related to establishing the new regime. Nevertheless, those two programmes had more activity than elsewhere. As demonstrated, little happened in Tabriz; and also in the provinces, no general policy emerged to give a sense of central control.

THE CENTRE

As before under Gaykhatu, Baghdad, Kashan and Hamadhan formed a kind of region. They preferred to use the title *Sulṭān*, but each place had a unique arrangement of the standard words. Only Kashan used the second Tabriz 694 H reverse type in full. However, it did so not in that year but in 695 H, after Tabriz had finished with it, and then only for a short period of that year.[96] Later in 695 H, it had its own type with only *Sulṭān al-Aʿẓam* and his name spelled probably with a *ghayn*.[97] Kashan also minted copper in 695 H, using a new reverse. Its copper took the style of the earlier Tabriz 694 H silver coinage but changed it somewhat to *Pād-i Shāh-i/Jahān ʿAẓam-i/Sulṭān Maḥmūd* with the mint at the bottom.[98] The obverse hub seems to have been taken from Mardin since it repeated the ruler as *Sulṭān Maḥmūd* below the *shahada*. Kashan was the best adherent of Tabriz's policy, but closer inspection shows that it had to put its finances in order on its own. In 695 H, Hamadhan also issued the same *Qazān* type of silver as Kashan had first done but left off the last line of the reverse.[99] Baghdad also struck silver in 695 H but had the inscription of *Pād-i-Shāh-i Jahān/Sulṭān ʿĀẓam/Qazān Maḥmūd/khallada Allāhu mulkahu*. It was similar to Kashan's but added *Āllāh*. This motley of measures revealed that precious little help came from Tabriz. If anything, Baghdad was organizing matters again in ʿIraq-i ʿAjam.

As for the other southern sites of Shiraz, Abu Ishaq, Kirman, Yazd and Isfahan, they began to flex their regional post-atabag status, which produced even more confusion. These places had a preference for the title of *shāh* rather than *sulṭān*. Only Kirman struck silver, but it did so with no date and had the atabag's name. The rest of the regions produced much copper. Yazd struck the metal in 695 H,[100] and Fars continued to mint copper but no longer called it *ʿĀdliya*, striking at Shiraz[101] and Abu Ishaq. One type from the latter mint had *al-mulk li-llāh* with *Ghāzān Maḥmūd Qān*,[102] and another had the Tabriz silver reverse with *Abū Isḥāq* at the top followed by *Pād-i Shāh-i Islām/Shāhān Shāh-i ʿAẓam*.[103] Later in 695 H, Isfahan also had a similar copper issue, stating *Pād-i Shāh-i Islām/Shāhān Shāh-i Aʿẓam/*

Ghāzān Maḥmūd/khallada mulkahu.[104] From this poor and confusing activity, it seems that the main aim was to hastily fill the revenue buckets. Only a vestige of Gaykhatu's policy remained in the region, and there was no central control of the production or distribution of actual dies.

THE WEST

In the Jazira, the cities of Mardin, al-Mawsil and Sinjar struck with various combinations of dies. They started immediately in 694 H as Sinjar issued its lion and sun copper with *Ghāzān*.[105] Also in 694 H, Mardin was quick to show its allegiance to Ghazan, a move that benefited it a short time later. To do so, the mint issued silver but first had to use Arghun hubs for both sides, changing only the date.[106] Next, it converted the reverse by engraving *Qāzān* below the Arghun Uighur inscription.[107] Then probably in 695 H (illegible date), the obverse like the reverse was re-engraved to state below the *shahada* the phrase *al-Sulṭān Maḥmūd*;[108] and Mardin continued minting in 696 and 697 H. al-Mawsil minted silver only in 695 H with its own legend of *li-llāh, Sulṭān al-Islām, Ghāzān Maḥmūd, khallada mulkah, waʿayd dawlatahu*.[109] The inscription mirrored the sentiments of the Tabriz statement of *Pād-i Shāh-i Islām* but inserted his Turkish title instead of the Persian one. Again, there is no evidence of direct central supervision.

In Gurjistan, almost nothing was produced. Only one coin is known, which is from 695 H.[110] The general lack of direction from the court was one reason for such little activity there, but another was that King David was frightened of the religious purges Ghazan had sanctioned. He much preferred to lay low and not seek the attention of Nawruz.

THE EAST

The eastern lands, in keeping with the lack of control from Tabriz but in contrast to the Islamic and Persian formulae in the rest of the realm, generally retained Mongol aspects on its coinage. The Dhihistani mint of Astarabad kept the top two lines of Mongolian as well as the falcon and sun before it inserted the Persian title of *Pād-i Shāh, Ghāzān al-ʿĀdil ʿAẓam* [sic].[111] In the southern region of Khurasan, two types gave the title *Qāʾān* to Ghazan, previously reserved only for the supreme Mongol ruler. One was a silver issue, possibly attributable to Marw, with the date worn, and a reverse of *li-llāh-i/Qāʾān al-Islām/Ghāzān Maḥmūd/khallada sulṭānahu*/"For God/the Lord of Islam/Ghazan Mahmud/May his authority be preserved".[112] The Mongol/Islamic title matched the Turkish/Islamic *Sulṭān al-Islām* on Nawruz's first 694 H Tabriz coinage. Then an undated copper issue of Jajarm[113] echoed this sentiment with *al-mulk li-llāh/Ghāzān Qāʾān*. Jajarm also minted silver which had the first Tabriz 694 H reverse.[114] Nawruz may have brought this die with him during his security rounds of the province in 695 H. Apparently, Ghazan was many things to many people according to the coinage from these years, including being a manifestation of the great imperial khan.

This review clearly indicates that not only were all the provinces without financial centres but also that the number of silver sites was almost equal to that of copper. This alarming plethora of copper was in part a continuation of Gaykhatu's policy and is particularly notable because Ghazan's second period completely renounced this kind of petty coinage. Another point of major significance is that the Tabriz mint master controlled only one site, the capital. This divestment of power is evident from the fact that Tabriz's new reverse of 695 H was used by Tabriz alone that year as was its new die in 696 H. Therefore in effect, although ten silver and copper mints produced coinage during the first year and a half of Ghazan's reign, none used the Tabriz *sikka* in harmony with the city. Its designs were neither copied in full nor were they used simultaneously elsewhere. In short, the reality was that there was no imperial financial direction.

Up to this point, it was Nawruz who ran the empire. He had, during the first year of Ghazan's reign, made secure Baydu's former area and included it in imperial finances. Even so, the organization was piecemeal. ʿIraq-i ʿArab, ʿIraq-i ʿAjam, Fars, Kirman and eastern Rum each had different reverse types in spite of the possible political unity indicated by the spelling of *Qazān*. Two other areas, Gurjistan and Khurasan were not subject to central control. Therefore, the system Ghazan had inherited from his father, that of simultaneous use of the same type and weight, completely fell apart under Nawruz.

Court hierarchy

After fulfilling his military subjugation and taxation role, however, Nawruz apparently gave way to a Khurasani or more likely a team of them. The departure of Laksi's appointee in Tabriz was the first sign that Nawruz's hold on the administration was slipping. The person who replaced his official at the beginning of 696 H was probably a reliable financial advisor from Naysabur. The new individual could have been either Fakhr al-Din Khurasani or Baha al-Din Khurasani, both of whom Ghazan later appointed as administrators. The appointment at this time, in 696 H, of trusted Khurasani officials from his previous diwan probably allowed Ghazan to contemplate the full overhaul of the rickety financial system. During the hectic activity of his upcoming monetary reform, the influence of Khurasani bureaucrats becomes even more evident.

By abandoning the Mongolian language and script on the Tabriz coins and adopting instead Arabic script with Persian, Arabic and finally Mongol titles, Ghazan was searching for an identity which seems to have included aspiring to the supreme title of the Mongols. The titles were a clear indication of the immense internal political struggle the Mongols were undergoing over the way forward.

From all the numismatic evidence, it is apparent that Tabriz did not have a unified monetary policy, evincing neither the will nor the power to control it. In particular, the practice of centralizing the manufacturing process of the die and then sending it to other mints had broken down. In other words, Nawruz had failed as an administrator; yet, wazirs had been unable to modify or improve his

administration. The dismissal of the Tabriz mint master and the end of Laksi's tour were quickly followed by Nawruz's complete fall and the rapid displacement of wazirs. Soon, there was no vestige of order at all; indeed, the fleeting tenure of wazirs reflected the constant challenges to the political stability of Ghazan's realm. Starting the countdown was Baydu's sahib diwan, Sadr al-Din Zanjani, who had continued in office for a brief time under Ghazan.[115] After him, Sharaf al-Din Simmani held the position for almost two years until near the end of 696 H. Then, another wazir was appointed who, lasting only one month, was replaced in the last month of 696 H by Sadr al-Din Zanjani again.[116] The latter did not change his manner. The khan's best general, back from a campaign in Gurjistan, reprimanded Sadr al-Din for the devastating economic condition that existed there. Sadr al-Din was also charged with embezzling state funds. His duplicity almost saved him once more, but he was killed in the middle of 697 H and replaced by Saʿd al-Din Savaji.[117] If there were any symbol of the need for Ghazan's monetary and fiscal reforms, it would have been Sadr al-Din Zanjani. Nevertheless, according to the coinage, neither he nor any wazir was directly responsible for finances. In fact, they seem to have had little power in Ghazan's court.

Ghazan's first period coinage, therefore, shows that Nawruz exhibited an unusual affectation of Persian tradition to emphasise Ghazan's power. However, the new titles were mostly for the benefit of other Mongols, being a statement of Ghazan's elevated position among them. Even Ghazan's new religion was couched in political phrases: previous Muslin rulers had used epithets with *al-Dīn*/"the religion" since they had no need to identify it as *al-Islām*. However, Ghazan's flirtation with Persian culture as a means to impress and secure obedience was fleeting. His mood not only reflected the political instability of his Persian realm but also represented his search for a new identity after the death of the last imperial khan, Khubilai. He was forced to reassess the western portion of the Mongol Empire, encompassing Greater Iran, in its own terms. He knew the realm had reached the summit of an internal crisis which had surfaced clearly at the end of Arghun's reign. The problems had continued to be addressed, in part, by old central methods and, in part, by new local ones; but matters had worsened. Within two years of coming to power, Ghazan realized that the petty affairs of each region could never be solved by accepting each one's claims. His coinage alone showed the localized and disjointed nature of the state. He needed a completely new approach to overcome some fundamental inadequacies, to unify the empire and ultimately to save his throne.

Notes

1 *Gaykhatu* seems to be a combination of *kai* and *khad*, the latter word meaning "hardened into tempered steel". The word was a poetic one, used for blessings.
2 Boyle, "Il-Khans", 373.
3 Pronounced in modern Mongolian as *Renchin Dorj*.
4 Sotheby Auction Catalogue, June 1987, lot 926; 5.55 grams. The date is 69x H.
5 American Numismatic Society 30.168.78; 2.31 grams.

6 J. M. Smith reported one coin from Tabriz for Irinchin Turji in 690 H, but it cannot be verified since his description was extremely general; Bibliothèque Nationale, no number; 2.42 grams.
7 American Numismatic Society 17.216.1664; 1.94 grams.
8 Steve Album, private collection; 2.05 grams.
9 Bibliothèque Nationale, no number; 3.43 grams. It had the Uighur reverse and *al-mulk li-llāh* on the obverse.
10 Bank Sepahi, Gaykhatu F; 2.44 grams.
11 Yapi ve Kredi Bankasi 10405; 1.62 grams.
12 Steve Album, private collection; 2.11 grams.
13 Steve Album, private collection; 2.14 grams.
14 Yapi ve Kredi Bankasi 10446; 2.35 grams.
15 American Numismatic Society 36.41.9; 2.22 grams.
16 American Numismatic Society 36.41.9; 2.19 grams.
17 Sotheby Auction Catalogue, May 1986, lot 612 a; 2.45 grams.
18 Steve Album, private collection; 2.36 grams. The year *ithnā* is engraved on the obverse.
19 Steve Album, private collection; 2.34 grams.
20 Steve Album, private collection; 2.36 grams.
21 American Numismatic Society 36.41.14; 2.49 grams.
22 Bibliothèque Nationale, no number; 2.72 grams. The coin is probably from Hamadhan, but it is a partial reading.
23 Steve Album, private collection; 2.85 grams. This coin has the date of 692 H. Another type also exists with no date.
24 American Numismatic Society 53.43.33; 2.74 grams. The number one of 691 H is in *diwani*; i.e. letters used for numerals, also called the *abjad* system. The number was also spelled out on other coins. The *diwani* practice did not continue for the 693 H issue.
25 Bank Sepah, no number; 0.80 grams, with hole. There is no description by J. M. Smith.
26 Steve Album, private collection; 3.08 grams. It has an illegible date on the one known coin.
27 Steve Album, private collection; 2.30 grams.
28 Steve Album, private collection; 2.96 grams. It has *Dūrjī*.
29 Bank Sepah, no number; 0.80 grams, with hole. The type has no date.
30 Howarth, 367.
31 Steve Album, private collection; 2.31 grams. The date is not completely clear.
32 Steve Album, private collection; 1.10 grams.
33 British Museum 1967.1.12.38; 2.67 grams.
34 Steve Album, private collection; 2.02 grams.
35 For Shiraz in 691 H, Steve Album, private collection; 1.76 grams. For Abu Ishaq in 693 H (the date is illegible on this particular specimen); Steve Album, private collection; 1.38 grams.
36 American Numismatic Society 71.38.5; 4.73 grams.
37 Ashmolean. Museum 119; 3.60 grams.
38 American Numismatic Society 2.154.60; 2.91 grams.
39 Spink and Sons Auction Catalogue, 9 June 1986; 4.33 grams.
40 Sotheby Auction Catalogue, June 1987, lot 927 h; 4.24 grams.
41 Sotheby Auction Catalogue, May 1986, lot 611; 4.18 grams.
42 Population of 4.
43 Population of 12.
44 The histogram shows that the lower limit is 2.35 and the upper one is 2.57 grams, producing a mid-point of 2.46 grams. The population is 78 coins. The other coins

outside the range fit later reductions, and the higher one is a re-stamped coin of Tiflis from the period up to 680 H.
45 Hoards of English coins that came almost directly from the mint, in all cases, have a peak slightly below the standard; Marion M. Archibald, "The Mayfield (Sussex) 1968 Hoard of English pence and French gros, c. 1307", *Mints, Dies and Currencies*, ed. R. A. G. Larson (London, 1971), 151–9: 155 and Figure 1. According to the *Red Book of the Exchequer*, the standard weight and deviation from it was provided by the number of coins that had to be struck from a certain amount of bullion. The royal mint followed instructions precisely and produced a normal Gauzian curve with tapering ends.
46 Re-monetization does not mean re-coinage. The latter term indicates that the government will not accept former coin as money, usually with stiff penalties for anyone possessing some. Only the newly decreed coinage is considered legal tender. In the Near East in general and certainly under the Mongols, all money was acceptable in the market place. The government had leverage, it seems, only if it insisted on payment of taxes in new coin. Even this control does no seem to have been the case consistently.
47 English coinage gives a parallel situation. During some periods, old coin was in circulation for more than 150 years; but all were shaved to meet the current standard until they were lost or melted down: "all earlier pennies, irrespective of the issue, peak on the current issue weight, and are not ... cut down *below* it"; Marion M. Archibald, "English medieval coins as dating evidence", *Coins and the Archaeologist*, eds J. Casey and R. Reese (London, 1988), 264–301; 292.
48 Boyle, "Il-Khans", 385.
49 Bar Hebraeus, *The Chronography of Gregory Abu'l Faraj or Bar Hebraeus*, trans. E. W. Budge (Oxford, 1932), 497.
50 J. Fischel, "On the Iranian Paper Currency (Ch'ao) of the Mongol Period", *Journal of the Royal Asiatic Society* (1939), 701–3.
51 Bar Hebraeus, 497.
52 Boyle, "Il-Khans", 377.
53 Ashmolean Museum 124; 2.52 grams.
54 Ashmolean Museum 118; 2.09 grams.
55 *Baydu* is still a tribal name in northwestern Mongolia.
56 Bar Hebraeus, 497.
57 British Museum 1846.5.23.274; 3.64 grams.
58 Ashmolean Museum 123; 3.77 grams. The type had the standard obverse inscription but without a square. The date is worn on this example.
59 Steve Album, private collection; 1.89 grams. Coins from Fars were minted only in Abu Ishaq, the last place to mint under Gaykhatu. Nothing has been reported from Shiraz for Baydu.
60 Yapi ve Kredi Bankasi 10456; 1.55 grams.
61 Münzsammlung (Munich) 89962; 2.15 grams.
62 American Numismatic Society 36.41.44; 2.45 grams.
63 Ashmolean Museum 124; 2.52 grams.
64 Steve Album, private collection; 2.43 grams.
65 Spink and Sons Auction Catalogue, 4 June 1986; 4.46 grams. These gold pieces emerged only in the late 1980s from Iran. Their companions, extremely rare gold pieces from the reigns of Irinchin Turji and late Arghun, were equally unknown heretofore; so they seem to have been stored together. Over a hundred gold coins were discovered, but no find site was reported.
66 *Ghazan* means "cauldron", the word currently used only in western Mongolia.
67 Boyle, "Il-Khans", 378. Also Charles Melville, "*Padshah-i Islām*: The Conversion of Sultan Maḥmūd Ghāzān Khān", *Pembroke Papers* I (1990), 159–77.
68 *Ibid.*

69 *Ibid.*, 380–2.
70 Additional insight into his attitude is suggested by the conversion ceremony. The act took the form of a Sufi ritual because of its similarity to some shamanist practices; Melville, "Conversion", 168, n. 6.
71 Boyle, "Il-Khans", 370.
72 *Ibid.*, 380.
73 His full name was Jijik Gurkhan Laksi. *Laksi* means "giant" as applied to a wrestler, a revered sport. The descriptive words in front of his birth name were given as he grew up to distinguish him from others with the same name, still a common practice in Mongolia. *Jijik Gurkhan* means "little king".
74 Howorth, 373; Nawruz's brother had married the seventh daughter of Hulagu. The whole family was an intricate part of the political establishment, so enmeshed that both brothers had felt qualified to challenge different sections of the ruling family. Nawruz's downfall later was not limited to himself. His family was executed as well, including this brother with his own immediate family. Ghazan ordered all the males killed; *ibid.*, 409. The move was equivalent to the removal of the Juvayni power bloc.
75 The situation is reflected later by Ghazan's re-affirmation of the tax-farmer for Fars in 696 H; Howarth, 407–8. For the tax season of 697–8 H, according to Wassaf, the agent levied 283 *tumāns*. However, the tax-farming system allowed such exploitation that a new agent was appointed late in 698 H. He offered the central government 22 more *tumāns* a year and 17 *tumāns* supposedly due from 696 H; *ibid.*, 451. These points are expanded, *infra*, in Chapter Ten under the Southwestern Tier: Fars.
76 Steve Album, private collection, 2.45 grams.
77 Yape ve Kredi Bankasi 10646; 2.25 grams.
78 Steve Album, private collection; 2.21 grams.
79 American Numismatic Society 63.46.7; 1.43 grams.
80 British Museum 1878.7.14.30; 2.35 grams.
81 American Numismatic Society 36.41.15; 2.58 grams
82 American Numismatic Society 00.999.11218; 2.47 grams.
83 For private sale, 4.37 grams.
84 American Numismatic Society 00.999.7706; 2.25 grams.
85 American Numismatic society 74.72.3; 2.13 grams.
86 American Numismatic Society 00.999.7706; 2.25 grams.
87 Yapi ve Kredi Bankasi 10767; 1.75 grams, clipped.
88 British Museum 1870.7.9.470; 2.00 grams, with hole.
89 Since the problems of the *qāf* in spelling Mongol words have already been discussed, the word should be understood without hesitation as *khān*.
90 "*Inja* means the personal domains of the sovereign and the lands of the Great *Diwan*" Barthold, *Turkistan*, 465, n. 20.
91 Münzsammlung (Munich) 85955; 2.10 grams. The last digit of the date is worn and illegible.
92 Steve Album, private collection; 2.45 grams.
93 The adoption of a lion may have been influenced by its earlier use on the coins of the Mamluk sultan, Baybars (658–76 H). Lowick traces the Mamluk style into Hurmuz, "Islamic Coins", 258–9. However, other animal images had already made many appearances on Mongol coins.
94 American Numismatic Society 00.999.7705; 2.25 grams.
95 The lack of change in *Qazān* on the same coin is somewhat hypothetical since, unfortunately, on the sole specimen known, the beginning of Ghazan's name is worn away.
96 American Numismatic Society 36.41.11; 2.42 grams.
97 Bibliothèque Nationale I 1418; 2.38 grams.

98 Ashmolean Museum 139; 1.70 grams.
99 American Numismatic Society 36.41.15; 2.58 grams.
100 Steve Album, private collection; 5.90 grams.
101 Ashmolean Museum 125; 3.12 grams. It has a quatrefoil obverse and a Uighur reverse.
102 American Numismatic Society 00.999.11.343; 1.90 grams.
103 American Numismatic Society 71.206.2; no weight, with hole. This type has no date.
104 American Numismatic Society 75.73.78; 4.39 grams.
105 British Museum 1870.5.7.14212; 2.34 grams.
106 Ashmolean Museum 102; 2.44 grams.
107 Steve Album, private collection; 2.48 grams.
108 Yapi ve Kredi Bankasi 10646; 2.25 grams.
109 Ashmolean Museum 142; 2.41 grams.
110 Steve Album, private collection; 2.27 grams.
111 Steve Album, private collection; 3.11 grams.
112 Yapi ve Kredi Bankasi 10657; 1.10 grams.
113 Yapi ve Kredi Bankasi 10766; 1.90 grams. Only the middle portion of the mint is legible. Jajarm is suggested because of the obverse hexagon that was last used in Khurasan.
114 British Museum 1957.1.12.31; 2.20 grams.
115 Boyle states that he had the position for a few months, but it is likely he was replaced more quickly; "Il-Khans", 382.
116 *Ibid.*, 382.
117 *Ibid.*, 385.

10

GHAZAN AND ULJAYTU

A secure but decentralized realm

Ghazan, 696 to 703 H/1295 to 1303 AD

Gift economy

The economic structure of Ghazan's realm probably had patterns that still exist today. Even now, nomads survive mainly on their flocks, the surplus of which supplies meat, wool and other such products to agrarian populations, which both feed urban centres. In the thirteenth and fourteenth centuries, conquered agriculturists and conquering nomads had similar life-styles exhibiting different consumption practices. The Mongol elite had their own household livestock but also received other products from taxation-in-kind. Further, the upper-class Mongols in particular had an economic and social system based on presenting and receiving gifts. The most prized objects, such as jewel-studded swords and gold-embroidered robes, were not the most practical things; yet gift exchange was the means by which the court arranged much of its affairs. Another term might be graft, but the negative connotations of the word could hinder a proper understanding and, more than likely, lead to simplistic presumptions about the process.

Significantly, gifts were not free in this society. The first step in the process was an offering from a lower individual to a superior one: the act itself defined social position. The acceptance of a gift by an individual with higher status indicated that he socially accepted the lower one, creating a client–protector relationship; but the hierarchy thus established produced responsibilities. The top person had to provide services for the lower one, such as protection or freedom of action. He also accepted the debt of returning the favour in part, in whole or even more, as befitted his status. The tale of the last ʿAbbasid wazir, which al-Fakhri recounted in 701 H for the local governor of al-Mawsil, was an example of this system. In this report, al-Fakhri clearly outlined the model of the hierarchy of subservience by valuing the objects in monetary terms and putting the actors involved at the apex of the social ladder:

> Mu'id ad-Din, the minister, was scrupulous in respect of official monies and those of the subjects, blameless, above that sort of thing. It is said that Badr ad-Din, prince of al-Mosul, gave him a present containing books, clothes, and nice things, of which the value was 10,000 dinars. When it

> came to the minister he brought it to the Caliph's service, saying, "The prince of al-Mosul has given me this present, and I am ashamed to return it to him, so I have brought it and ask you to accept it," and he accepted it. Then he sent to Badr ad-Din as a return present some nice things from Baghdad, of which the value was 12,000 dinars and asked him not to send him further presents.[1]

Earlier in his book, al-Fakhri was even more explicit about the previous order of society:

> No doubt the rulers of the Marches, such as those of Syria and Egypt, and the prince of Mosul used to transmit to them [the Caliphs] annually something by way of a present or to secure their good offices. They sought from them investiture in the government of their territories, thereby to rule absolutely over their subjects and by this means to impose on them obedience as a duty. Perhaps the Caliphs used to return to the rulers of the Marches in exchange for their presents the equivalent of these or even more in value, – all this to maintain outward prestige and that their name might appear in the Marches on the coinage and in the bidding prayer, till it became a proverb, and of one who had the appearance of power without any reality it was said, "So and so in such and such a matter is content with the coinage and bidding prayer," i.e. he was content with the name without the reality. This is a précis of the characteristics of the ʿAbbasid dynasty.[2]

The Mongols were no exception to this system; however, by the late seventh century hijra, at the time of Ghazan, part of the Mongol attitude had changed. Rashid al-Din denounced the highest level of gifts as "squandering" by saying, "during the time of the Mongols,[3] they had many clothes, brocades and similar things in which gold was wasted".[4] It was apparently during Gaykhatu's time that the gift-exchange mechanism cracked into outright greed. All contemporary historians but one were in agreement about Irinchin Turji's moral depravity. In tune with the others, one noted that he had no purpose other than:

> riotous living, and amusement and debauchery. He had no thought for anything except the things that were necessary for Kings, and which they were bound to have, and how he could get possession of the sons and daughters of the nobles, and have carnal intercourse with them.[5]

Since receiving must be balanced by giving in this gift system, apparently many people were disturbed because Irinchin Turji was too acquisitive. In contrast, al-Fakhri, in describing the general behaviour of the perfect prince said, "liberality to his noble subjects adorns a ruler".[6] In other words, it was wise recognition and appropriate remuneration that solidified ruler and administrators, not largesse inspired by the ruler's delight. Since the sources decry that these proper actions

did not occur under Gaykhatu, the structure of the Mongol court became chaotic and so did the administration of the realm.

Ghazan inherited this chaos and could do little until his authority was securely established. However, military stability had not created political success. He needed to reform his entire administration. He started in 696 H, and Rashid al-Din recounts much of the activity in a number of chapters in his history. Many functions were completely over-hauled: in one case, the army became more structured. Rather than employing the whole *ulus*, the military now had special forces, which were paid mostly in kind although some also had small salaries.[7] Another vital transformation was that regional governors and other officers received regular stipends from the central government rather than funds appropriated directly from the populace. All revenue now went to the central treasury whence it was disbursed back to officials and departments. Furthermore, Ghazan abrogated usury and drafts drawn on the collection of future taxes[8] since his advisers considered that the money had usually gone to pay for ostentatious consumption.[9] Only current accounts were acceptable; in other words, Ghazan wanted a balanced budget. The acute importance of the financial changes was indicated by a reorganization of the royal treasury. Up to this point, it seems to have continued the old imperial system first reported during Ogedai's reign: Juvayni recorded that "being by nature extravagantly bountiful and liberal, he [Ogedai] gave away everything that came in from the farthest and nearest parts of the Empire without it being registered by accountant or inspector".[10] During his time, Kirgiz had established a permanent storehouse for the third imperial province; but his lead was discredited upon his downfall. Numismatic evidence from die storage, however, suggests that some items were well accounted for and securely preserved. In contrast, Rashid al-Din reports that the treasury had been picked up and moved from camp to camp before Ghazan's reform. It had been left in the open air and protected only by a felt covering. Robbery was not a problem, but eight-tenths of it was squandered every year in largesse or incompetence:

> Just a few treasurers had been appointed who collectively received everything added to the treasure and in the same way spent collectively. When there was nothing left, they said so. ... Ghazan introduced a new order (so they set up treasure houses which were strictly guarded: moreover bookkeeping was introduced).[11]

From the analysis of the last five chapters, these complaints are rather overstated. However, they may well have been true of the situation from 690–6 H.

Thus, when Ghazan decided to lock up the treasure once again and to keep a register of what and how much he had, not just the collective height of the heap, he signalled a major change in royal economic concepts. Ghazan's structural reforms of accounting procedures affected the upper class and the army as well; but, to be effective, the central diwan needed tighter control of the general economy. Much of Ghazan's great reform programme was predicated on a change of attitude,

moving from official largesse, particularly evident under Gaykhatu, to a mercantile or businesslike approach. Indeed, this is the main point of this entire study. Although not abandoning gift economy, Ghazan elevated the market system to a more prominent position, perhaps even the most important. In this, he followed his father's lead, which had been lost over the previous ten years as the empire had fragmented, only some distinct regions exhibiting active administration.

By installing bookkeepers, not just recording clerks, Ghazan announced that the new order had a numerical basis. The change was obvious to contemporaries. al-Fakhri in his introduction states:

> The studies of rulers differ according to their different points of view. The studies of the rulers of Persia were saws, moral precepts, literature, history, geometry and the like. The studies of the rulers of Islam were philology, grammar, lexicography, poetry and history, so much so that an error in speech was one of the most objectionable faults in the royal dignity, and a man's rank might be advanced with them by a single anecdote, a single verse of poetry, – nay, a single idiomatic word. As for the Mongols, all those studies were rejected, and other studies were popular with them, – economics, accountancy, for "balancing the budget" and the estimates of revenue and expenditure, medicine to keep bodies and constitutions (in health), and astrology to choose occasions.[12]

The author was in an excellent position to judge the change. He was the son of a tax collector and was writing in al-Mawsil when the region was at the height of Ghazan's new reform and the city itself was preparing to take over once again the financial administration of the Jazira.

Edict of the financial reform and analysis

Thus, to counter the disintegrating forces in the empire, Ghazan undertook the complete overhaul of financial affairs and tightened practically every aspect of public life. His wazir and court historian, Rashid al-Din, later copied and elucidated his monetary reform in his world history at the encouragement of Ghazan's brother, Uljaytu. The report has been the sole official medieval edict on financial reforms in the Near East to survive to the present. It is unique and invaluable as the only copy of the actual laws promulgated, allowing a comparison of a contemporary edict, full of ideals, to the contemporary coinage, replete with reality. The Persian text is translated below and followed by an analysis:

> Chapter 20: Purification of the Fineness of Gold and Silver [to be] Better than It Has Ever Been or Could Possibly Be.
>
> It has been no secret that from former times to the present, in any period, there has not been a coinage of the whole realm in the name of a ruler

who was the universal sovereign, especially in periods when the realm was in the hand of several rulers and authorities. Always, the local fineness of gold and silver differed. Moreover, in several regions when the rulers have wanted to control it and establish uniform fineness, even though issuing laws to ensure promotion, (the reform) not being accepted, they could not control it.

There is no doubt that one of the prerogatives of these rulers is not that the Friday prayer and the coinage should be in their name; but, until now, in Rum, Fars, Kirman, Gurjistan, and Mardin,[13] they continued to strike coinage in the names of kings and governors there with different finenesses.

In several places during the reigns of Arghun Khan and Gaykhatu, there was a law that there they mint silver of nine-tenths fineness which was (only) words (since it was), nevertheless, seven- or eight-tenths, not more. The *aqche* of Rum, which was relatively better than that of other places, reached a point where ten *dīnār*s had no more fineness than two *dīnār*s of silver, the remainder completely copper. Often, the Mongol emissaries with Tajik clerks went to the districts in order to investigate the decreed legal fineness. They caused a great deal of expense, did not question a bribe for the entry of any criminal, and had no shame when the (local minters) struck and circulated several types of *aqche*, which looked completely copper, no more trace of silver visible in them. Moreover, since the *aqche*s circulated by count, people clipped them. And even about the weight, there was variation.

Since regional fineness differed, merchants, out of necessity, traded in cloth; and, wherever they went, they bought gold and silver which were more fine than that of their intended destination since there was more profit in doing so. For that reason, textiles were not to be found in many areas. It reached a point at which they bought money for less than it was worth or, otherwise, would not accept it.

Every person who wanted one hundred *dīnār*s for local expenses suffered a loss of more than ten *dīnār*s; it was often twenty *dīnār*s. There could not be a worse confiscation than when people who are not merchants lose ten or twelve (per cent) every two or three months from the funds that should be for their subsistence.

Along with this, great pain had to be taken for money to be accepted from them, especially in the countryside and nomad camps where people did not know the fineness and would waver about accepting it, (wondering) which was better.

The benefit of the existence of gold and silver is that, through them, the needs of mankind are expressed and anything man wants is quickly obtained. When the gold and silver situation becomes such that disputes and discontent appear because of it and at the time of payment no one accepts it, it is an offence to the order and nature of the world.

The Ruler of Islam, may his reign be eternal, was so concerned about rectifying these damages that, out of his own interest, he ordered a single stamp and made a design on it which was not possible for everyone to make.

He decreed, "Throughout the realm, they strike gold and silver with that die until every place has coinage with the name of God and the messenger". His name also was registered on it.

Even in Gurjistan, where coinage had never been in the name of God and the messenger, it was necessary to mint it since there was no other circulating coinage till now when it is (still) necessary there to strike that stamp in spite of rebellion; or, otherwise, their coinage would not be accepted anywhere.

As a result of the aforementioned, throughout the realm, the minting of gold and silver with one stamp became well-established and long-lasting. As for establishing the fineness, he said, "If we allow an amount less than a fineness of the purest possible gold and pure silver, it would become even less, like the Khalifal, Egyptian, and Maghribi (standards); by virtue of that permission, they would increase the reduction; and, by trickery and fraud, they would revert to another kind of fineness. Our investigators would not be knowledgeable or would show negligence by taking bribes. The right thing to do is that they mint only pure gold, (which is) such that it can be hammered into (gold) leaf and strike pure silver of repeated refinement, which can be dissolved in mercury so that if (even) the tip of a hair is mixed in, it would be apparent either from the colour or from the softness and, if heated in fire, would become immediately clear. Validation of that (purity) would be easy for everyone".

Since he wants the fineness to be at this standard in all regions but there was much variety in the local finenesses, he says, "If this law were promulgated suddenly, the general public would suffer loss and cry out. It is appropriate then that since, formerly, they struck every *dirham* at four *dāng*s; and (then), without there being a good purpose in doing so, they made (it) with half and a half *dāng*, which is irresponsible, now, they should mint half of the correct *mithqāl*, (i.e.) that which was an adulterated half and a half *dāng* is to be half a *mithqāl* of pure silver. Since validation of gold and silver is by the quantity of fineness, everyone who has a debased half and a half *dāng* (coin) or (in other words) takes out one *dirham*, may make repeated purifications (of it) to a half *mithqāl* and (then) may spend only one *dirham*".

Since compliance prevails, (the reform) is close to accomplishment without excessive loss; people willingly exchange three *mithqāl*s and a half of silver, which they had before, for three *mithqāl*s of minted pure silver coinage.

He continuously checks, "What is the price of pure gold?" Then he orders that they should mint it with a result that, appropriately, they set

the price (for buying and selling), which is not any different (from the market price). He says, "(For) the gold of Hurmuz, which one could not distinguish from gun metal, and other golds of less fineness, they should set a poorer, cheaper price". Its purpose (was) that when the money changers would find out there was gain in melting them, they would buy everything and make pure gold with (it). Since they did discover that benefit, within a period of one year, it became such that throughout the realm no one sees a *mithqāl* of substandard gold.

Before this, pure gold was rarely found in the markets; if an amount of it was brought in, a hundred buyers would appear for it, it being well-known that it (was rare) because, during the time of the Mongols, they had many cloths, brocades and similar things in which gold was wasted; and, also, there are the goods for Hindustan (which) are still carried there, reducing the gold. At this time in the bazars, so much red (pure) gold circulates in the hands of every villager that it has no end and all business is done in it.

In the provinces, no gold or silver not struck with the aforementioned stamp remained. (Formerly,) the law regarding that states that if adulterated gold or silver is seen in a person's possession, the person is interrogated to reveal the one who gave it to him since there were varieties of adulterated gold. Now, the law is that no one can transact business with anything other than pure gold and pure silver. What he does not recognize (as pure gold and silver), he shows to another in order to be careful. In this way, he is not defrauded by counterfeit gold because he knows the real ones when he prefers not to take from someone that which is of concern to everybody.

At this period, (since) there are several important decrees in all the neighbouring provinces, it is not necessary for anyone to be killed. (In fact, the reform) received such promotion that there was no other stamp or fineness than the above-mentioned stamp and fineness in all the regions.

He says, "In order to spend the coined silver also by weight, (it is) three *mithqāl*s to one current *dīnār*,"[14] so that no one cuts (the coins).

Since equity prevailed, people have become tranquil; and traders have made goods for money. Now, they carry various textiles to every district. Plenitude (and) cheapness appearing, the general populace shared in the benefits.

The name of the Ruler of Islam, may his power last forever, is spread by the goodness of the coinage; and the Friday prayer and coinage of the empire are in his blessed name.

He says, "Mint presentation pieces of pure gold, every one a hundred *mithqāl*s".

The scripts of all the regions have on that stamp his name so that wherever (and) whenever it was read it was known as his coinage. Verses of the *Qur'ān* and the names of the twelve *imāms*, peace be upon them,

are engraved on the stamp. The stamp is so fine and lovely that whoever finds it is loath to hand (it) over but wants, of course, to look at (it).

He says that "For a complaint, whenever someone is in the right, We bestow on him a favour of one of these donative pieces."

These several important matters, which not one of the former caliphs or sultans managed, is easy for the Ruler of Islam, may his reign be eternal. It is so well accepted that it is the cause of the general tranquillity.

May God, the Sublime, of everlasting time, grant (us) grace!

Chapter 21: The Correct Manufacture of Gold, Silver and Steelyard Weights, the Measuring Rod, Liquid, *Qafīz*, Dry and Other Measures.

Formerly in the provinces, the gold and steelyard weights, the measuring rod, liquid, *qafīz* and dry measures varied to an extent that, within one district, different areas also had different measures. For that reason, prices suffered a great deal of damage. Merchants bought very few goods. Since every area's money (when) carried to an(other) area increased (in value), profit developed merely by the discrepancy of their weights, and cloth had no market in some districts or was not to be found in others.

In every village, there were two or three different *qafīz* capacity measures, with the smaller transacting business with foreigners, with the larger among themselves, and a foreigner if he knew (it). However, if not, he had to be satisfied with the matter. The villagers also gave false witness for one another that the *qafīz* was correct.

The *tughār* capacity given to the army and as provisions, which must have been one hundred steelyard *mann*, came out to seventy or sixty *mann* or even less. The strong, by beating with a stick, took the full amount and even more. For that reason, people were always in disputations and arguments.

The Ruler of Islam, may his authority last forever, said, "Every province is subject to our command. What is the necessity for these differences to exist? We order them to be controlled so that there is equality everywhere. In addition, (We) do such that in the markets, districts and villages different weights do not remain so that no one can steal by that means."

In regard to the spoken blessed concern, he issued a decree consisting of the aspects of the reform and its system and organization as written in the (following) copy of its explanation and the exposition of its meaning.

The Copy of the Decree about the Fineness of Gold and Silver, which is ordered (to be) in a way that is the best of all.[15]

In the name of God, the Beneficent, the Merciful,
By the power of God, the Exalted,
And the grace of the community of Muhammad,
The decree of the Sultan Mahmud Ghazan.

Military prefects, kings, clerks, deputies, judges, descendants of the messenger, religious leaders, ministers and noble, esteemed and celebrated men, and inhabitants, travellers and merchants of the realm:

Know that the complete vision and intention of our reign (is bent) on the alleviation of the condition of subjects and the general population, (the promotion) of justice and honesty among them and the establishment of good things; and we desire to defend against oppression and injustice, innovations and improprieties, which, being widespread amongst the population for long periods, always caused the general people difficulty. We remove situations of fighting and argument, false claims, strife and hostility from the people of the world and clear types of hypocrisy and oppression from their necks so that in this world they are released from injustice and difficulties and in that world from punishment and hell fire.

At this time, since We are investigating the affairs of the realm and the interests of the people and precisely making a survey of every matter to such an extent, it has become known that in the markets of the royal camp and cities everyone, for his own benefit and profit, is making a weight from stone, clay, iron or other material and every moment, on his own whim, increases or decreases (it); their business being done with it, the poor are beset with fraud and loss. This situation, not being in accordance with Our world-ornamenting opinion, We have not approved.

It is ordered throughout the empire, from the Oxus River to Egypt, (that) gold, silver and goods (weights), the liquid measure and the measuring rod should be made correctly, all of them manufactured from iron; and a seal and a control which We have certified at court should be taken before the empire for that purpose. There is no deviation from that. The details and their exposition are the following, which provide an explanation.

First, the weight (standard) of gold and silver must be everywhere equal and equivalent to the weight (standard) of Tabriz so that no one should make it less or more, nor the people bear oppression; nor, as well, should they transport money from district to district because of the difference in weight. Just as the fineness of gold and silver in the land should be equal, so should the weights be equal.

For that purpose, We appoint the masters Fakhr al-Dīn and Baha' al-Dīn Khurasanī so that people manufacture weights for gold and silver in an octagonal shape. In every district, they (Fakhr al-Dīn and Baha' al-Dīn) should appoint two trustworthy men as their agents, (with) one reliable person on behalf of the judge of that district to verify the weights in the presence of the market inspector.

The method of controlling (the system) is that they (the people) have constructed, in an octagonal shape and stamped, the weights for gold, following the model of Fakhr al-Dīn and Baha' al-Dīn Khurasanī. In every

district, every person who may have need for weight(s) should make them for himself from pure iron, again in that shape. After that, they (he) should go to the four aforementioned agents, who were appointed in every district, so that the agents, verifying adherence to the standard, place a stamp to that (effect) and (then) surrender them (back to the person[s]).

Everyone who desires to fabricate a stamp and put (it) on a weight is guilty (of a crime) and (should be) killed. Next, to whomever they (the people) give the weights for the stamp, the agents must enter the name of that person in the register so that others wilfully cannot create fraud. Every month the agents should check and balance all of the weights of the general populace. If someone has increased or decreased (them), stamped (them) concealing their interest (?) or traded with another weight which should not have that seal and stamp or have created a fraud by those weights, the agents conduct those people, under arrest, before the military governor so that, as required, the law of the decree is executed on them.[16]

Next, heavy weights for goods have the same rules, system and organization. However, the regulation is that wherever the standard is less than the weight of Tabriz, the agents should make it in accordance with and equal to (that of) Tabriz; and that which, at this time, being more than the weight of Tabriz; (which they know by) checking the standard of the weights of that district, they allow on the same grounds.[17]

However, all of those agents (responsible for) the control and organization must issue all of those weights, constructed according to the model of iron and with an octagonal shape, checked and stamped.

The weight(s) for goods must be constructed in a set of eleven pieces from ten *mann* to one *dirham* as follows: ten *mann*, five *mann*, two *mann*, one *mann*, a half *mann*, a quarter, an eighth, ten *dirhams*, five *dirhams*, two *dirhams*, one *dirham*.

Whatever heavy loads are in one piece, the tax collectors of the cities must construct a reliable Frankish steelyard. The load is weighed with it such that there may not be an increase or decrease in the weight.

Next, because of the fact that in every district, the measures of the *kayla*, *qafīz*, *jarīb*, and *tughār* for wheat and barley differ and have many terms, (there are problems). In particular, the *kayla* measure is increased or decreased, and everyone makes, at his own discretion, the *kayla* dry measure and the *paymāna* liquid measure. (As a result,) controlling that[18] is difficult (since) every one does not understand it. (It is) particularly (difficult) for the Mongol army, traders and strangers. In every district they reach, they fall into arguing with the subjects about receiving and selling the *tughār* due to the government. Every person who is over-powering and strong takes more than the appropriate amount by force. (To) those who are weak, they give them less than the appropriate amount. The result is the decrease and loss, difficulty and disputes of the people of the world.

For that reason, I say, "Everywhere the dry measure should be the same. Every dry measure by the weight standard of Tabriz is ten *mann*, of which every single *mann* of that is 260 *dirhams*; ten *kayla* of that is one *tughār*. Besides these aforementioned *kayla* and *tughār* dry measures, there are no other measures or conventions among people so that business and accounting be correct and people do not defraud one another; and when the *tughār*, measured by that (standard), is given over, it is accepted because there is no increase or decrease in the *tughār* (weight).

Since the seeds of wheat, barley, rice, peas, broad beans, sesame, millet and other (commodities), some (being) lighter, some heavier, for every one of those seeds, the *kayla* measure must be constructed separately especially for that seed, such that there are ten exact *mann*. They (the agents) write on the four sides of every *kayla* measure that it is the measure of a particular seed.

This task is transferred from the judge's court to the same agents who were appointed for the weights of gold and silver and goods. In the company of the market inspector, they check that dry measure. They also put on its edges a mark of their own such that no cheating, less or more, can be made with that (measure). Every month in the city and (in the) district (of that city), the agents check. Every person who has made and possesses a dry measure without the mark, they arrest that person and deliver (him) to the military governor so that the troublesome hand (which) made the criminal is cut off. Crime and sin are stamped out.

Hereinafter, there is to be no *kayla*, *qafīz*, or *jarīb* of any kind or cause in the entire empire from the Oxus River to Egypt except the *kayla* of ten *mann* and the *tughār* of one hundred *mann*. If there be no confidence, no acceptance of the measurement[19] and discarding others, they may if they wish use half the *kayla* of five *mann* so that there be twenty of the half *kayla* to one *tughār*.

Other liquid measures for oil, vinegar and butter must be made according to individual certification. Every liquid measure is ten *mann* of the Tabriz weight (*wazan*). If half a measure is desired, five *mann* of the Tabriz weight is to be taken. The leather bags of oil which are brought for cooking the food of the army and post-riders have five measures of fifty *mann* while that which is brought for eating have four measures of forty *mann*.

Finally, the *gaz* by which cloth is measured is made to correspond with the Tabriz *gaz* except for the Anatolian *gaz*, which is markedly different. Nevertheless, concerning all *gaz* measures, a seal (*muhr*) which the masters Fakhr al-Dīn and Baha' al-Dīn Khurasanī had designed and the model given to them[20] was affixed to both ends of the yardstick (*gaz*). The aforementioned agents are in charge of that as well in every city with the requirement that an explanation be given.

Any living being who makes an alteration or change is a criminal and condemned to death.

May God, the Most High, the Holy, send such justice and equity in the days of the king![21]

Rashid al-Din's official report dealt with two aspects of coinage, its weight and its fineness. Within that, he touched on design, inscription, economic theory and financial policy. However, the basic presentation was confused: he mentioned weight in the first section, which was ostensibly devoted only to fineness, and provided information on alloy in the second, which was dedicated to weight. Moreover, the edict on fineness is missing. Instead, Rashid al-Din gave only phrases of the ruler and his explanation about it. Nonetheless, the explanation, which was supposedly official, was also an interpretation, most likely by Rashid al-Din, himself, or the clerk assigned to contribute this section to the history.

Most significantly, the full report was not a record of the monetary reform alone. Instead, it is evident that Rashid al-Din conceived his purpose to be the recording of all the changes in the financial sphere. The two chief aspects of money, that of weight and alloy, required the separate attention of a chapter each as did other financial points, such as the abolition of usury, the installation of accounting practices and payments to officials and the army, not translated above. Therefore, to Rashid al-Din, monetary reform was but one feature of the much greater comprehensive economic reform. As a result of his viewpoint, this unique source for monetary history unfortunately is incomplete and generally reflects only a few years of Ghazan's reformed coinage system. In particular, it focused on the situation in 701 and 712 H, according to numismatic evidence. The wazir failed to give a full rendering of the reform in several other respects as well: he supplied no dates for its inauguration, no plan for its implementation, other than for gold, and no clue to its conclusion. In fact, the author's knowledge of previous and current monetary events was quite limited. For example, since no weights or dry measures are extant,[22] it is probable that none were ever made. Rather, the coins, manufactured at a precise standard, could themselves have been used as commodity weights. Also, there are no known presentation pieces, especially in gold, of 100 mithqals even if *mithqāl* was understood as *qirāṭ*. The closest would be quadruple gold from Baghdad in 699 and 700 H among other mints and sextuple silver from al-Wasit in 702 H. The quadruple coin was 48 and the sextuple 72 carats, but both are far below the magical number of 100 carats. Further, the writer's comment that the Shi'a twelve imams were listed on the stamp reflected Uljaytu's coinage at the time of writing in 710 or 712 H, not Ghazan's coinage. Again contrary to the information in the edict, Gurjistan minted coins with the name of the messenger, Muhammad, from its first issue in 637 H and had not put its local dynastic ruler on the coinage under Hulagu and Abaqa. To conclude the list of Rashid al-Din's inaccuracies, but certainly not to exhaust them, Mardin, after 665 H, did not mention its Artuqid ruler. Both Gurjistan and Mardin did cite their regional sovereigns, however, under Ghazan, himself.

Part of the reason for these misleading points was that the author was reporting many events from 701 H when subordinate regions were becoming stronger. In

that year, Gurjistan issued silver coins in the name of Wakhtang III and Ghazan. Further, a number of manuscripts add Lur after Mardin in paragraph two of chapter 20, presumably meaning Greater Luristan. The last ruler of the dynasty, Afrasiyab, was sentenced to death and all local control removed in 695 H.[23] Reform coinage did appear there in 698 and 700 H, but in 701 H Shushtar issued copper with a non-reform design and a new title for Ghazan of *Pād-i shāh-i Humayun*/"Lord of the world". This title had been used only once before, on Hulagu's Damascus coinage. Thus, although Ghazan's name was on the coinage, the region was slipping away because it did not use the Tabriz stamp. As for Mardin, its silver coins at the time were the normal imperial type; but the city issued copper in the name of Ghazan and the Artuqid ruler, Najm al-Din Ghazi II (693–712 H). It is this copper coinage that may be the cause of the writer's otherwise unwarranted tirade against Mardin. Even though there is no date or mint for the copper, the reverse had Ghazan's reform Mongolian type and was probably struck in 702 H just after other areas also had semi-local coinage. Another reason for this date is that Ghazan specially honoured Najm al-Din Ghazi by visiting Mardin and bestowing on him the wondrous title equivalent to "Sultan of the Jazira" in the middle of 702 H.[24] Soon, however, even this petty coinage ceased. The Artuqid ruler's date of death gives another indication of the time of Rashid al-Din's information. Wassaf reports that Rashid al-Din's work did not stop in 710 H but continued to 712 H.[25] This date is probable because in 712 H the author could speak out against the recently deceased Artuqid, especially in reference to an event that had occurred twelve years earlier. Therefore, in spite of Rashid al-Din's glowing words about the reform, it is ironic that he used events especially in Gurjistan and Mardin as examples of its success when they were, in fact, clues to its beginning demise: the reform's subsidence began in 701 H.

The author also leaves a false impression about the proselytizing role of the new coinage. The obverse stamp still had the same statement that had always appeared on Tabriz's money. Its imposition on Gurjistan at this time was not unique. Rather, for only eighteen years of Mongol rule, from 680 H until this reform, had the region experienced the exceptional freedom of having the Christian credo on its coinage. Another curious point about Rashid al-Din's comments is that he used the title of "Ruler of Islam" for Ghazan long after the khan had originally employed it on his 694 to 696 H coinage and then abandoned it. Rashid al-Din may have been inspired to use the term by another factor; namely, his own conversion to Islam. As a result, the coinage contrasts with the text in many ways, indicating a different turn of events from that enshrined in the current view of Ghazan's rule.

The reform coinage

Type

A closer analysis establishes the actual strengths and weaknesses of the reform. To start, the political and financial framework changed. In essence, after briefly

donning Persian protocol, Ghazan began to forswear foreign accretions and to re-affirm his ancestral heritage. In his *quriltai* during Sha'ban, the seventh month or June, of 696 H near Ardabil, he not only strengthened government procedures but also re-assessed his moral position in it. By late 696 H, he completely re-instated Mongol political and religious norms; in particular, he re-emphasized the steppe religion. He also returned to the Mongolian script and his simple personal Mongol name, to which he added only his Islamic one of *Maḥmūd*. Finally, on his new coinage, in complete accordance with Mongol tradition, Ghazan used no title whatsoever, not even *khān*. To him, his legitimacy was clear; and his power was assured.

Once the *quriltai* was concluded, the re-structured financial department imposed new directives. A herald of the imperial re-alignment was perhaps a small gold denomination, a half unit. It retained vestiges of former patterns; the obverse inscription read *al-mulk li-llāh*/*ḍarb-i Tabrīz*/"Authority belongs to God/The mint of Tabriz", not the normal *shahada* of the coming reform coinage. This anachronism had been a standard inscription for halves and quarters since the 680s, but it was in the new pentafoil design. The reverse of the small coin read simply *Ghāzān*/*Maḥmūd* in Arabic script with no Mongolian language or script.[26] No other gold is known from Tabriz besides this proposed piece for 696 H. It is undated; but it may have been minted at the beginning of the reform, perhaps as a memento of the *quriltai*. After this, the diwan started first with the standard single silver; but, as the reform slowly gained momentum over two years, it changed gold to the same formula as silver and developed larger denominations of it.

On the full reform coinage, Ghazan's officials modified the obverse very little. They altered the outer design from a square to a curved pentagon; but they did not touch the basic simple Islamic *shahada* except for the line divisions, which put *Muḥammad* on the entire middle line and placed the mint above it in very small letters. This arrangement was clearly brought from Khurasan, in which it had been created at Marw in 679 H and revived at Naysabur in 683 H.[27] The date was arranged clockwise in the sections outside the pentagon with *wa sallim* in the bottom section. Other than these three points, the format was a continuation of previous Tabrizi coinage. The first rendition of the design for 696–7 H was rather ornate but later simplified for the major thrust in 698 H.

The reverse, in contrast, proclaimed the revolution in identity. It went back to the type used by Ghazan's father and grandfather except for one important change: the khan relinquished *Nereber Khaqanu*/"In the name/of the Khaqan" for *Kuchun-dur Tegrinu*/"By the power of Heaven". The inscription read from the top in Uighur script *Tegrinu*/*kuchun-dur*, then the next line in Arabic script *Ghāzān Maḥmūd* and the following line again in Uighur script *deledkegülüg sen*. This meant, translating from the bottom to the top, "The coinage of/Ghazan Mahmud/By the Power/of Heaven", the type is illustrated in Plate 10.1

A close observation of the change indicates the primordial strength of the ancient tradition from which Ghazan now claimed his legitimacy. Formerly, the top line had followed Islamic practice, but the new ones copied standard Mongol protocol

Obverse

Reverse

Plate 10.1 Ghazan reform type (Baghdad) (Date: 697 H; weight: 3.72 grams; metal: silver)

Source: © Copyright The British Museum 1877.5.1.37. Actual size.

established after Chingiz Khan's death. At the head of official Mongol correspondence, the normal invocation was *mönghka Tingri-yin kuchun-dur*/"by the Might of Everlasting Heaven". Its first known use occurred in Guyuk's letters to Pope Innocent IV. Later, Mongka Khan also admonished the crusading French king, Louis IX, with "the eternal God knows" and "by the power of the eternal heavens".[28] The word "eternal", which could be written *mongk'a* or *mongqa*,[29] also appeared in 'Phags-pa script on Mongol *gereges*/*paizas*.[30]

Under Mongka's strong leadership, official coinage had followed official correspondence: the expanded phrase was translated into Arabic/Persian on the margins of Hulagu's first Baghdadi coinage of 656 H. The word *qadīm* was used as the equivalent of the Mongolian *möngka* in *Bi-quwwa khudā al-qadīm, ḍuriba hadhā al-dirham* .../"by the power of eternal God, this dirham was struck ...." This shamanic-inspired phrase had replaced the Islamic one of *Bi-smi Āllāh*/"In the name of God". The reform coinage of 696 H re-instated the concept although it replaced "eternal, eternity" with its co-existent "heaven".[31]

The return to imperial custom and recognition of the source of true Mongol legitimacy did not abrogate other recent practical developments. In the case of *sikka*, the theory was now put into its final medieval form. There was no standard minting formula expressed in a sentence as occurred in the Islamic format. Rather, it followed Mongol practice, in which succinct words provided the bare information of place and date of issue. At some mints, notably in Khurasan, the mint, *ḍarb-i* (*city*), was tucked between the lines of *Ghāzān Maḥmūd* and *Kuchun-dur*. This method listed the city twice, once on the reverse and once on the obverse. The location of the mint's name in such conspicuous places, that is in the centre of both the reverse and obverse fields, might suggest that the mint was important. However, the opposite should be construed since the size of the name was minuscule relative to every other message on the coin. Indeed, the purpose of this reform was to create universal money: there was no longer any real need to identify the place of manufacture. At this point, the new definition of *sikka*, introduced in 687 H, had reached its full potential. The small mint names were but a vestige of a former tradition.

On the left-hand side of the reverse were three strange characters. Although placed vertically, they could be read only when the coin was turned 90 degrees to

the right or left. When the coin was turned to the right, the characters were Chinese; and they were read from right to left as with Arabic and Uighur script. They stated *Cheng/Shih/Chin*/"Properly minted money" or, in other words, "legal tender".[32] A similar statement had appeared on the 624 H cash-like billon series from Samarqand, saying *Munggū/Chingiz-i*/"correct money". Although this term had been found on southern Song coinage for a long time, it was not to appear on Mongol Yüan money until 740 H/1341 AD.[33] Chinese cash, however, had been known for some time in the trading towns of Samarqand and the Persian Gulf. In the latter, the oldest coins excavated are dated from early 600 AD; but they became prominent in the Saljuq period. Their influence suggested the use of the *pao* character for money on the Salgurid coinage under Hulagu. Therefore, these strange terms would not have been novel for Ghazan's officials or merchant houses.[34]

The idea of putting the term "money" on a coin was also not new. As just noted, Chingiz Khan's coinage from Samarqand had used the Mongol word *munggū*, which also appeared at the top of the gold from al-Mawsil in 673 and 676 H. This reform was, however, the first time the term was written in Chinese using the Chinese word.

The reform coinage has attracted a good deal of attention, much of which has been directed at these three marks. In contrast to the above analysis, Stanley Lane-Poole turned the coin to the left and identified them as 'Phags-pa characters,[35] the script developed for Khubilai Khan by his Tibetan Buddhist mentor through modifying Devanagri, a form of Sanskrit.[36] This interpretation has been followed by almost all others to date. However, two specific points discount the characters as being 'Phags-pa. First, The modified Devanagri had been proclaimed as the universal state script by Khubilai in 668 H/1269 AD, but most officials had not accepted it. Rather, it was a theoretical writing system, essentially, which few scribes, if any, knew in Ghazan's realm. Second, these letters, particularly the K, came from standard Indian Devanagri of the time; the characters are *Ka Sa Na* or *Ghazan*. The consonants *K* and *S* are the closest sounds to *Gh* and *Z*. It was not 'Phags-pa since that alphabet had been derived from the older form of Devanagri current in Tibet.[37] The coinage was a practical medium, intended to be used and recognized even by traders from China and India.

The message of universality exhibited by these several languages was also conveyed by decorations on the reform coinage. The top of the reverse had a curly Chinese-style cloud that emphasised the word below it of *Tegrin*/"Heaven". On the other side, the later dies of Baghdad had the intricate steppe double knot indicating eternity, today identified as a Buddhist symbol; it was placed between the important ascenders of *ilāh*. Once again, the power of Eternal Heaven was directly invoked on a medium used by all Mongols and their subjects.

Other aspects of the new coin also caught a significant amount of contemporary attention. In particular, the obverse had a new border, a delicate pentagon inscribed within a circle. The symbolism of the five points were lost on Rashid al-Din but probably represented the Shamanic components of life, those of fire, water, wood, wind and metal, whose combinations with other factors such as colour and time,

rendered prognostications of events. Therefore from this analysis of the design features, it is quite possible that the obverse expressed three religious views. Certainly, this coinage is the beginning of the most famous series of "Islamic" coins known rightly for their excellent artistry and superb craftsmanship until the money of the Moghuls of India. Rashid al-Din's rapturous phrases about the beauty of Ghazan's reform coins are repeated even today by numismatists.

Metals

The reform addressed all three metals, but the role of each was different. Silver received the most attention as it was the mainstay of the monetary system. Gold served as an expanded adjunct to it. Even though Rashid al-Din made a great point that it was plentiful and pure, it had a slow start. Copper almost disappeared, being assigned to extremely rare petty coinage issued under special regional agencies.

In 698 H, the reform was in full swing and was celebrated by special gold emissions. These occurred in Maragha, discussed shortly, in Shabistar, the capital of Lur-i Kuchuk, at double the currency unit or at 4.24 grams, and at Siwas, the capital of Rum, at quadruple the weight or at 8.48 grams. For the first time, both of these last two territories became part of the imperial order. Therefore, these two issues were acknowledgements of submission to the new system, a reflection of gift economy, in which the item of the lesser had to be quite valuable in order to gain even more valuable assets from the leader. In essence, these issues were celebratory.

The reform did not just change numbers and designs; it was an effort to create wealth as well, particularly alienable wealth, which was expressed in the expanded role of coinage. As a result, money was allowed to determine the value of gold to silver by market forces. A simple exchange between the two metals was now possible because, first, gold and silver were issued at the same weight and, second, it seems, no imperial copper was minted at the beginning. Another metal would have been a third party complicating the initial stages of the reform.[38] All of these aspects of the reform advanced the theory and practice of money significantly.

Metrology

The reform included a new weight, which was half a *dāng* lower than the previous coinage. The single unit was 12 carats or 3 *dāng*s of the 4.24-gram mithqal; that is, 2.12 grams. This weight applied not only to silver but to gold as well, therefore concluding the transition of gold into the silver system, which had started at the beginning of the decade. Both gold and silver alloys were 95 to 98 per cent pure,[39] as pure practically as any coinage can or should be. Previous Mongol silver had also usually been at the highest standard in spite of Rashid al-Din's comments.

The weight reform required a complete mobilization of the workshops, evident from the fact that no previous imperial coins were re-stamped. It was as thorough a re-monetization as Arghun's first reform had been; all the coins were newly made to fit the decreed high purity and lower weight. However, the Tabriz mithqal did not prevail over the entire realm: substantial enclaves still used the 4.30 and the 4.48-gram standards. Both of them had been used in the empire for some time; the lower one in Gurjistan from 680 H and perhaps slightly earlier and the higher one in Tabriz, itself, for the gold coinage since 676 H. At some point, the gold mithqal had been carried to Anatolia, perhaps during Gaykhatu's governorship of the province. An indication of the transfer problem was a transitional single unit coinage in early 698 H from Arzanjan at 12 carats of the 4.48-gram mithqal or 2.24 grams.[40] However, by the end of 698 H, the original gold minters from Tabriz seem to have been supplanted in Arzanjan by Georgian staff whose task was to complete the first incorporation of eastern Anatolia into the imperial system. Later in 698 H and for the rest of the reform, most of the coins of Anatolia were struck at 12 carats of the Georgian 4.30-gram mithqal or at 2.15 grams. These differences are visible on weight distribution charts; coins struck at 12 carats of either the 4.48 or 4.30-gram mithqal were heavier than those issued on the 4.24-gram mithqal and form separate groups. Their existence is not admitted by Rashid al-Din except insofar as he reported that, according to Ghazan's edict, the heavier coins were legally equal to those of Tabriz.

Units

Generally, only single units were struck; however, Ghazan's reform produced another innovation by issuing multiples of the normal unit, namely the double and quadruple, in both silver and gold, unique to date for the Mongol monetary system. One reason for doing so may have been that the bigger sizes of silver and the new gold gave Ghazan's money another important function; it became a store of value. The increase in worth for large individual pieces suggests that the market economy had expanded substantially by them, that the sector was richer and that people trusted money as a security. Rashid al-Din had emphasised that, before the reform, people had used cloth rather than coin for trading because currency values were unstable. With the new coinage, large denominations allowed merchants to store more wealth. However, the result was not only an increase in moveable wealth in the form of coins but also in monetary circulation. Any value taken out of the market by the use of larger sizes and gold was more than regained by the multiplier factor. The point that high-value coins were well-circulated is attested not only by Rashid al-Din but also by other government and merchant reports.[41] Significantly, a steady production of gold and multiple unit silver coins was neglected after 702 H as the reform declined.

Implementation of the reform

In 696 H, Ghazan was finally secure enough to hold a *quriltai* in Sha'ban on the grasslands between Ardabil and Sarab. He completely reviewed financial affairs,

and he introduced the new obverse and reverse designs later that year in Baghdad.[42] By Safar 697 H, early November, he was back at Tabriz but soon continued to the pastures of Arran to spend the winter and early spring of 697 H. Then, he issued new coins from his camp of Bazar. Since the weight for both the Baghdad and Bazar issues remained the same as his father's coinage at 2.47 grams, it is apparent that the new designs were but the first step in a full reform. Ghazan was following precedent, however; like his father and grandfather, he changed the style before the weight. After this, from Sha'ban to the beginning of Dhu al-Hijja,[43] he was in Tabriz, which then issued a modified and simpler obverse design with the new weight. At the beginning of 698 H, Ghazan made another visit to Baghdad. A contemporary, al-Fakhri, underlined the importance of the event by commenting on the ceremonial aspects:

> Our ruling Sultan (Ghazan Mahmud), – may God strengthen the basis of his power, and spread the shade of his justice in the East and the West, – on coming to Baghdad in AH 698, entered the Mustansiriyyah to see it and visit it. Before his coming thereto it was embellished.[44]

However, the main reason for the sojourn was to complete the new reform. Another contemporary, 'Abd al-Razzaq, in his entry under 698 H, reported that Ghazan came to Baghdad not to admire public buildings but to establish the new coinage reform.[45]

Financial matters have always been complicated; and in this reform, as with previous ones, the new plans were grand in concept but difficult to effect. In terms of geographic extent and number of mints, production exceeded that of any previous Near Eastern ruler. There was an increase to about a hundred mints, but the number is misleading since the sites shifted. In fact, only half the total number of mints were in production at the height of the reform in 699 and 700 H. Moreover, this remarkable success lasted only three years. Nevertheless, qualified numbers and dates do not affect the immense importance of the reform. The entire realm was finally under one system which was proven, as all contemporaries said, by the fact that coins of the same type and weight were minted everywhere. In effect, Ghazan's money appeared wherever he had supreme domain: it did not appear in Kart territory, that is, Balkh, Marw, Harat and Sistan, or in Gurjistan from 700 H onwards. Ghazan's reform culminated in 700–1 H, which could be considered the peak of Mongol control south of the Black and Caspian Seas.

In almost every way, Ghazan changed the structure of the khanate and its reason for being. The fact that the reform started in Baghdad in 696 H gave another signal of the decline of Tabriz as the financial locus of the empire. There were several stages in this radical development: during the first one, from 696–8 H, financial administration around the empire continued to be rudimentary and may have been farmed. In the second period, from 698–701 H, the ultimate authority resided with the imperial financial diwan; however, it constantly moved often from north to south and back again. This migration was a distinct alteration in the

method of governing the empire as the diwan now usually accompanied the ruler as he moved across his hard-won empire. In contrast, under Hulagu and Abaqa in particular, the financial supervisor had exercised powers geographically separate from the *urdu*. Even though Tegudar had brought the diwan to his camp, it was only for one year; then the administration had returned to a central site. Ghazan's farther, Arghun, and his uncle, Gaykhatu, had both followed a centralized pattern of administration although delegating some responsibilities to local regions. Consequently, during most of the control of the Hulaguids, Tabriz had commanded financial events in the realm, supplying agents and directives to various regions of the country. Under Ghazan, instead, authority resided with him, alone. Part of the reason for the change may be that he maintained his structure from Khurasan.[46] Once in the west, however, he did modify it to spend more time in cities than both he and his predecessors had done before. Baghdad and Tabriz were two favoured residences while Bazar minted on the road.[47] A particular sign of Ghazan's presence at a site was the production of gold or the double unit silver coin. Thus, the initial dispersion of royal minting amongst Baghdad, Tabriz and Bazar reflected a shift in the role of a central depository. No longer did Tabriz have a unique coin type, nor was financial control in the hands of a master in one stationary building. Rather, taxation was probably collected and kept in local centres throughout the realm to pay regional officials and the standing army while the central treasury remained in Tabriz. Policy decisions were made wherever the monarch resided. In some ways, the transformation allowed the inner Mongol clique more control of affairs rather than relying on career civil servants like mint masters and wazirs. In another way, paradoxically, the real outcome was a slow disintegration of the empire.

The administrative structure of the reform was first based on the royal mints. From them emerged the first regional centres. The initial region to be fully developed was Arran, on which the others were subsequently modelled. From there, the empire was divided into three major regions with substantial sub-divisions. It is evident from the chronology of development that sections of a small and tight-knit imperial bureau travelled to each region. Whether or not a member of it remained behind or a local person was entrusted to maintain the reform is hard to determine. Nevertheless, in either case, he was in close contact with the central authorities and policy. The following discussion considers first the royal mints and then each region.

The royal mints

To begin with the location in which the reform started, it was the royal mints that underpinned the ensuring structure. Table 10.1 depicts their production, the sites defined as "royal" according to both gift and body politic theories. The places and times seem to have been dictated by Ghazan's regular migrations. In 698 H, he was in the al-Wasit area for three months from Safar to Jumada I, during which he was involved with sending an army to quash a rebellion by the Mongol commander-in-chief of Rum.[48] Probably no minting occurred then; but,

finally, Ghazan went to Baghdad for twelve days in Jumada II, the sixth month. It was apparently then that the city issued the single and a new denomination, the double silver coin. Two months later in Sha'ban, he was in Ujan. There, he held his second *quriltai*, which must have reviewed the birthing pangs of the coinage reform and resolved on actions for the next stage. This is probably the period and place from which Bazar issued the new weight of the single silver unit at 2.12 grams, the new denomination of the double and finally the first gold of the reform. By the last day of the year 698 H, Ghazan was in Tabriz, which quickly issued the same set of coinage.

In the first month of 699 H, Ghazan set out for his Syrian campaign to avenge the Mamluk sacking of Mardin in the previous year. He went by way of al-Mawsil and Nisibin and was so successful that by Jumada I, the fifth month, the *khutba* was said in Damascus in his name. This great military victory was not celebrated on the coinage, however. In fact, by then he had personally withdrawn from Syria; and his forces soon followed him.[49] During the summer, from Ramadan to Shawwal of 699 H, Ghazan was in Maragha; and by the end of Shawwal, the tenth month, he was back in the pasturelands around Ujan, in which he held another *quriltai*. Once again, Bazar presumably struck then in the later part of the year. Then he set off to Tabriz, staying until Muharram of 700 H. At the end of 699 and the beginning of 700 H, the Tabriz mint was at its most active for the entire reform, even using Baghdadi hubs. The city struck the single and double silver and gold all during this time. The coinage corresponded with a buzz of activity as Ghazan actively pursued the building of his mausoleum and its massive supporting infrastructure of caravansaries, baths and markets. However, it was not long before he left for Syria again, leaving in Safar, the second month of 700 H. Two months later, he crossed the Euphrates but turned back six weeks after that because exceedingly bad weather prevented the campaign from proceeding. By the end of Jumada I, the fifth month, he was at Jabal Sinjar, at which he stayed for some time, and finally crossed the Tigris in mid-Ramadan. At this point, he sent a punitive expedition into the mountains to subdue the Kurds. By the end of Ramadan in 700 H, he had again reached the pasturelands at Ujan, but Bazar did not mint during the whole year of 700 H. In fact, for almost half a year, Ghazan led a quiet life.

The khan was on the move again in 701 H. He was in the Arzanjan area at Ala Tagh in eastern Anatolia in the third month, Rabi' I, of 701 H, passing near Qarabagh the next month. It was probably near that town at which Bazar minted the single and double silver, again with Baghdadi hubs. Ghazan was on his way back to the western littoral of the Caspian Sea for winter. After that, in about Sha'ban or early spring, he had such a good hunt of swan that he announced a reduction of taxes for Tabriz.[50] Therefore, in 701 H, only the single silver unit was issued over the cusp of Sha'ban and Ramadan.; it was the lowest level possible for a tax.

Near the end of 701 H, Ghazan went to the mountains to receive the submission of the Ladz (Lezghians); but by July or Dhu al-Qa'da, the eleventh month, of 701 H, he returned to Tabriz. In 702 H, the normal tax for Tabriz was reinstated

as gold and the double supplemented the single from the year before. However, like Bazar's emission from the previous year, the double used a die from 699 H made for Baghdad, apparently originally brought to Tabriz to supplement the building activity for the mausoleum. The khan's main focus now was to hold a new *quriltai* at Ujan, at which he celebrated Muharram for 702 H as well as to make plans for a new campaign into Syria. Dutifully, Bazar minted the double. Then, once the Georgian forces had arrived, Ghazan set out on the first day of Safar 702 H or 26 August 1302 AD. However, he did not go directly west but through Kirmanshah and al-Hilla and was in the region of al-Wasit in Rabi' II of 702 H or the beginning of December of 1302 AD.[51] After this, there are no more issues from the royal mints perhaps because the Mamluk conflict required all the government's attention. Ghazan turned his horse towards Syria; but, after sending the army ahead, he rejoined his family at Sinjar in Ramadan of 702 H. Going back home by way of Irbil, he was in Maragha in early June or Shawwal and Dhu al-Qa'da of 702 H and at Ujan before the end of the year to spend the summer. There, he held an inquiry into the defeat of his forces in Syria and meted out some severe punishments. As the days turned into autumn, he travelled to Tabriz in Safar of 703 H or September, but no coinage was struck. He left almost two months later for Baghdad. On the way, he became severely ill but regained his health enough to take charge of affairs again from the first day of Jumada II, the fifth month, of 703 H. Unfortunately, he suffered a relapse two months later in Rajab near Sawa and died two months after that in Ramadan, the ninth month, of 703 H.[52]

Ghazan's itinerary clarifies the activity of the mints of Baghdad, Tabriz and Bazar. Table 10.1 shows that the reform started modestly with only the single silver coin. However, such had been the chaos before then that it took approximately a year and a half before the reform was fully organized. All of the coins were struck on a tentative production schedule[53] but only by the royal mint, which was not stationary in a central location. After that, from the middle of 701 H, the policy of a peripatetic central mint was less actively implemented, requiring dies made in Baghdad several years earlier to be used for the doubles of both Bazar and Tabriz. In 702 H, the reform slowed and then stopped. As Ghazan's illness became more severe in 703 H, the royal mints were completely inactive.

Regional mints

A somewhat different story can be told about regional mints since they had a more stable system. In contrast to Ghazan's first period of coinage, the Tabriz weight and type were extended to almost all the mints of the empire; and a large number of new sites were opened. In the first year of 698 H, many of them had to begin with former types; but others received the reform style. Also in contrast to the first period, there was absolute and tight authority from the centre even though the top administration was peripatetic. Along with this control, the diwan instituted a completely new approach to sub-regions immediately in 698 H.

Table 10.1 Royal mints, 696–703 H

Date	*Baghdad*	*Bazar*	*Tabriz*
696	s[1]		
697		s[2]	
			s[3]
698	s[4] D[5]		
		Au(2)[6] s[7] D[8]	
			Au(2)[9] s[10] D[11]
699	Au(4)[12] s[13] D[14]		
		s[15] D[16]	
			Au(2)[17] s[18] D[19]
700	Au(4)[20] s[21] D[22]		
			Au(2)[23] s[24] D[25]
701	Au(2)[26] s[27] D[28]		
		s[29] D[30]	s[31](Sha'ban, Ram)
702	D[32]		
		D[33]	
			Au[34] D[35]
703			

Notes

Au – single gold unit; s – single silver unit; D – double silver unit; ( ) – multiple

1 Yapi ve Kredi Bankasi 10478; 2.45 grams. Also British Museum 1915.4.3.41; no weight, but no mint inscribed after *Duriba*.
2 Steve Album, private collection; 2.31 gram, with hole.
3 Steve Album, private collection; 2.10 grams.
4 Yapi ve Kredi Bankasi 10482; 2.12 grams.
5 Yapi ve Kredi Bankasi 10480; 4.35 grams.
6 Yapi ve Kredi Bankasi 10457; 4.25 grams.
7 Kunsthistorisches Museum (32) 949; 2.05 grams.
8 Steve Album, private collection; 4.25 grams
9 Bibliothèque Nationale, no number; no weight.
10 Yapi ve Kredi Bankasi 10708; 2.12 grams.
11 Bibliothèque Nationale M 1107; 4.09 grams.
12 Sotheby Auction Catalogue, May 1986, lot 613a; 8.44 grams.
13 Münzsammlung (Munich) 94405; 2.11 grams.
14 American Numismatic Society 67.108.3; 4.25 grams.
15 Yapi ve Kredi Bankasi 10473; 2.15 grams.
16 Ashmolean Museum133; 4.25 grams.
17 Sotheby pre-auction viewing; autumn, 1986; no weight but probably the full mithqal.
18 Yapi ve Kredi Bankasi 10707; 2.12 grams.
19 American Numismatic Society 74.240.23 Hoard; 4.31 grams. It has Baghdad hubs.
20 Islamic Museum (Cairo) 17247; 4.32 grams, with two holes.
21 Yapi ve Kredi Bankasi 10490; 2.10 grams.
22 American Numismatic Society 74.240.11 Hoard; 4.26 grams.
23 Sotheby Auction Catalogue, October 1982, lot 339; 4.35 grams.
24 Yapi ve Kredi Bankasi 10714; 2.12 grams.
25 American Numismatic Society 74.240.24 Hoard; 4.30 grams. It has Baghdad hubs.
26 Sotheby Auction Catalogue, May 1986, lot 616; 4.34 grams.
27 Bibliothèque Nationale 1969.631; 2.14 grams.
28 Kunsthistorisches Museum (42) 7.714; 4.27 grams.
29 Steve Album, private collection; 2.11 grams.
30 American Numismatic Society 74.240.8 Hoard; 4.30 grams.
31 Steve Album, private collection; 2.06 grams. With the month of Sha'ban, Hermitage 16; 2.14 grams; and of Ramadan, Yapi ve Kredi Bankasi 10715; 2.08 grams.
32 Yapi ve Kredi Bankasi 10496; 4.17 grams.
33 Bibliothèque Nationale AF; 4.26 grams.
34 Bibliothèque Nationale, no number; no weight.
35 Yapi ve Kredi Bankasi 10717; 4.20 grams. It has Baghdad 699 H hubs.

FIRST REGIONAL CENTRE: GREATER ARRAN, 698 H

The first region the diwan established was Greater Arran, which was composed of Arran, Adharbayjan and Jilan. This northern tier was differentiated from the rest of the realm by the capital issuing at a higher weight in the guise of multiple units. The practice had just been introduced as a prerogative of the royal mints and was now extended to this area. At the very beginning of 698 H, as the *urdu* was en route from Tabriz to Baghdad, it seems to have visited the town of Maragha, the Mongols' intellectual centre.[54] Maragha struck gold,[55] presumably indicating the royal presence. The diwan showed its respect and emphasized the town's status by issuing the gold series at four times the reform weight, thus combining Islamic, Mongol and Zabulistani body politic tenets. From this flamboyant proclamation, the town imitated the new reform in the region and ultimately the empire. Shortly thereafter, it issued normal silver coins, which were much more appropriate for common use.

Although the proposed arrival of Ghazan and his entourage at Maragha was essential for the organization of the mints in the region, the royal diwan did not place the centre at Maragha, itself, because the Mongols kept separate headquarters for their cultural, political and financial ministries. Instead, the centre was assigned to a former site of the treasury, Nakhchavan, during the following year. As the capital, it had heavier weights and steady production, vestiges of the body politic regional theory. Soon, the city's control extended northeast to Bardha', east to Amul and west to Urmia. As the regional base, Nakhchavan was taxed every year. However, Bardha' and Amul were visited in yearly rotation since, apparently, the towns owed tax every other year. Table 10.2 outlines the mint structure of the Greater Arran area from 698–703 H.

From the minting history above, it seems that by the middle of 698 H, the new regional agent left Maragha for Ganja and then settled in Bardha' over the cusp of 698 and 699 H to collect its taxes. In the beginning of his stay at Bardha', he issued a series at the old weight. Since he had issued at the other two sites at the reform weight, he seems here to have had to re-heat old flans. Then by 699 H, he reduced the coinage to three *dāng*s or 2.12 grams. Once that was accomplished in the middle of 699 H, the agent moved to Nakhchavan and established his true headquarters there, depositing the revenue already gained. The city's status was announced by being the sole producer, under normal conditions, of double unit coins. Later in the year, he advanced to his last site, Amul, and began to collect taxes there by striking money. As he was completing the task, he instructed the eminent town of Maragha to strike a special double issue for the new year to celebrate the turn of the century to 700 H. The agent soon arrived himself in the area and continued west around the lake to Urmia. Since he did not visit Urmia again, this was probably a special digression which may have been caused by the need for his supervision of the transfer of the Arzan al-Rum diwan to the Jazira, discussed shortly. On his way back to headquarters, he again went through Maragha, which in Ramadan had another celebratory issue. Soon thereafter, the Greater Arrani supervisor and his diwan resumed their normal duties and arrived late in

Table 10.2 Greater Arran (silver)

Date	*Single*	*Double*
698	Maragha[1] Ganja[2] Bardhaʿ[3]	
699	Bardhaʿ[4] Nakhchavan[5] Amul[7]	Nakhchavan[6]
700	Amul[8] Maragha (Muh)[9] Urmia[10]	Urmia[11] Maragha (Ram)[12]
	Nakhchavan[13]	Nakhchavan[14]
701	Nakchavan[15] Bardhaʿ[16] Au[17]	
702	Bardhaʿ[18] Nakhchavan[19] Amul[20]	
703	Amul[21] Ruyan (Ram)[22]	Nakhchavan (Ram)[23]

Notes

1 Yapi ve Kredi Bankasi 10639; 2.15 grams.
2 Steve Album, private collection; 2.10 grams. The single coin known from Ganja has the last digit worn, so the date is either 698 or 699 H.
3 Yapi ve Kredi Bankasi 10502; 2.40 grams.
4 American Numismatic Society 22.216.175; 2.09 grams.
5 Yapi ve Kredi Bankasi 10559; 2.10 grams.
6 Yapi ve Kredi Bankasi 10560; 4.15 grams.
7 Steve Album, private collection; 2.13 grams.
8 Steve Album, private collection; 2.15 grams.
9 Yapi ve Kredi Bankasi 10642; 2.15 grams.
10 American Numismatic Society 17.216.1556; 2.04 grams.
11 Yapi ve Kredi Bankasi 10726; 4.08 grams.
12 Steve Album, private collection; 4.25 grams.
13 Bora Etkar, private collection; no weight. It has a 699 H reverse.
14 Yapi ve Kredi Bankasi 10522; 4.22 grams.
15 Yapi ve Kredi Bankasi 10663; 2.08 grams.
16 Bora Etkar, private collection; no weight.
17 Bibliothèque Nationale M III; 3.73 grams. The date is damaged.
18 Steve Album, private collection; 2.13 grams.
19 Steve Album, private collection; 2.15 grams. Most coins after 700 H have 699 H reverses.
20 Bora Etkar, private collection; no weight.
21 Steve Album, private collection; 2.14 grams.
22 Steve Album, private collection; 2.21 grams.
23 American Numismatic Society 00.999.11267; 4.18 grams. It has a 699 H reverse.

the year back at the capital of Nakhchavan and stayed there into 701 H. Next, he moved quickly north to Bardhaʿ to meet Ghazan in Rabiʿ II and had a special gold issue.[56] He collected regular taxes over the cusp of 701 and 702 H and then headed back to Nakhchavan in the middle of 702 H. After that, he set out for Jilan and gathered taxes from Amul over the season of late 702 and early 703 H. Once more, from these odd dates, it seems possible that the tax calendar was not based on the lunar Muslim one but on a solar seasonal or Mongol one. Moreover, taxes were not due from every city every year.

Then the Arrani diwan, like all the others in the realm, was severely curtailed in 703 H. It struck two issues during Ramadan, one in Ruyan and another in Nakhchavan. However, they were notable exceptions to both the rest of the realm and Arran's previous pattern. In particular, Nakhchavan had not minted on special occasions like Ramadan. However, since it minted even as the whole empire had almost no activity, most likely both issues were caused by the presence of Ghazan in the area. In fact, the khan was to die just one month after these issues east of Qazwin.[57] Thus, Ruyan probably minted because it was the closest mint to the *urdu*. Nevertheless, with the camp being in a state of agitated concern, the royal court may have sent the agent post haste back to Nakhchavan to secure the region; and he minted there again in anticipation of ceremonies at the royal mausoleum.

Thus, Nakhchavan started out issuing the single unit, then struck both singles and doubles until the force of the reform lost steam in 701 H. In that critical year, there was a loss of direction in several regions including this one. Although the reform was revived in 702 H, its implementation was reduced everywhere. In Nakhchavan's case, the city stopped issuing its single and double units to enter a cycle of rotating production, minting the single in 702 H and the double in 703 H. The Greater Arrani region was not only one of the first departments established in the new organization it was also the most consistent in thoroughly following a schedule.

THE BASIC GROUP, 698 H

In the first year of the full reform, that is in 698 H, only Greater Arran was fully established as a distinct region. Contiguous areas were able to lay only the minimal foundation by having at least one mint each: in ʿIraq-i ʿArab, it was Baghdad; in Gurjistan, Tiflis; in Fars, Shiraz; in ʿIraq-i ʿAjam, Hamadhan and Kashan; in Rum, Arzanjan; in Kirman, the capital of the same name and, further away, in Khurasan, Khabudjama. Finally, in the powerful Jazira, there were three sub-areas headed by al-Mawsil, then Jazira ibn ʿUmar and Mardin with its ancillary mint of Amid. All but one of these twelve original 698 H mints struck silver at the decreed weight of three *dāngs*.

In the next year, those sites generally became the centres for each of their regions so that, in 699 H, the reform began to blossom profusely. As with previous policy implementation, this one also developed chronologically from one area to the next; and, once again, the progression seemed to represent the physical

movement of the chief financial officials. At first glance, their programme reflected the events that had occurred during Ghazan's governorship of Khurasan. Of particular note is that, in 687 H, he had been acknowledged on the province's coins at the same time that Arghun had divided the realm into three territories, the centre, the west or, in military terms, the right side and the east or the left side.[58] In 688 H, the east, unlike the rest of the realm, had gone further down that road and created three sub-regions. Not only this experience but probably also even the same people who had organized the trilogy remained fresh and active in Ghazan's plans. Even so, the original impetus for arranging the empire in such a fashion had not arisen just in the previous decade. In fact, the three-tier structure is noticeable throughout much of Mongol rule: there had been three imperial provinces; Chormaghun had divided Arran into three sections; the first Arrani coinage saw three mints a year; and Abaqa and Arghun had each divided their realm into three sections. In practical terms, the policy did not allow any regional power base to easily assert itself; but the number three had a mystical resonance, and still does in Mongolia, that went beyond geography. It had such great importance to the Mongols that it affected time as well as space. For example, there were two massive and extremely effective coinage reforms that lasted only three years and then crashed in most respects, namely those of Arghun and Ghazan.

For a variety of reasons, therefore, in 699 H as Ghazan's diwan established the full imperial system, it split the realm into three regions again. The re-introduced policy was applied even to the initially formed region of Arran as well. However, the main areas were not the same ones that had existed under Ghazan's father and grandfather because they had directly controlled less land than Ghazan did. As a result of their long-term policies, however, each region had grown and now included more territory. At this point, the empire contained northwestern, southwestern and northeastern tiers. Each was given specific aims within the general reform, as in 687 H, which provided somewhat different attributes to regional organization. To be precise, one area, the northwestern, continued the body politic tradition; another, the southwestern, maintained royal prerogatives; and the third, the northeastern, kept the equality of the frontier. This reformed tri-partite structure was successful and remained in force at least another half century, even after the demise of the dynasty: about 740 H, al-ʿUmari noted three currency regions, which he identified by the names of their capitals, the Tabrizi, Baghdadi and Naysaburi dinars.[59] After the tri-partite structure for the basic form of the empire, adhering to an entrenched Mongol concept of government, was firmly in place, Ghazan's diwan applied the same principals internally to each region.

NORTHWESTERN TIER

The northwestern region was composed of three portions: Greater Arran, already discussed, Greater Rum and the Jazira. The key feature that distinguished the area was derived from the initial and long-standing system in Arran: a heavy weight or double unit coin proclaimed the regional centre or head of operations.

After establishing Arran in 698 H, the imperial diwan first applied the Arrani methods to the sub-region of Greater Rum. This move was a matter of expediency after the dangerous revolt of Sultamish, Ghazan's uncle. He had been quashed in Rajab, the seventh month, of 698 H in a battle near Aqshahr between Sivas and Arzanjan on the main trunk road across Anatolia. This challenge to Ghazan's authority was the impetus for one of the chief successes of the reform, that of removing Anatolia from tribute payments and adding it to the imperial system. The effort produced the major thrust of the reform for the year 699 H, in which twenty-one of the new mints appeared in Saljuq territory alone. They boosted the total of new mints to over fifty[60] for the year. When compared to the previous year, which had listed only seventeen mints in the entire empire,[61] the new figure indicates the enormous drive to secure Anatolia.

Like the empire and the regions, Anatolia was, in its turn, also apportioned into three minor sections, those of Rum and two new areas, Irminiya and Ufrat, the latter being the land around the Euphrates headwater. The regional centres of Arzanjan, Khartapirt and Arzan al-Rum were not in the middle of their territories; instead they controlled Anatolia from a tight geographical triangle that afforded support for each other with troops and expertise. Arzanjan managed the area west of itself, Khartapirt the area southwest and Arzan al-Rum the north and east.

(1) Greater Rum Once in loyal hands, the region was invaded by government agents. In the area of Rum, itself, Arzanjan[62] took the lead and issued reform silver. Then late in the year of 698 H, Arzanjan was upgraded to produce the double unit. It continued both the single and double the next year and then produced only the double denomination. It was the most western of the three centres in Anatolia and was responsible for the mints that existed even further west. Its hegemony extended over most of Rum proper, having twenty-two single-unit production sites, including the former dual capitals of the Saljuqs, Qunya and Sivas. In 699 H, the mints were, in alphabetical order, Bagshahr,[63] Birhar,[64] Burdhur,[65] Burghlu,[66] Gulshahr,[67] Gumush Bazar,[68] Kik,[69] Ladak,[70] Lu'lu'a,[71] Ma'dan,[72] Magazan Bazar,[73] Niksar,[74] Nigda,[75] Qaysariya,[76] Qirshahr,[77] Qunya,[78] Samasir,[79] Samsun,[80] Sinub,[81] Sivas[82] and Sivri Hisar.[83] Other possible mints are not secure for various reasons, but a continued study should add more to the list. These additions might include Suq Diyar[84] and Sanduqlu[85] Many of these mints fell by the wayside in 700 H, but Qara Lamabad[86] was added. Armanak issued also in 700 H and continued to do so but with pre-reform dies.[87] It was the local seat of the Qaramanids, who later moved to Larenda. Notably, these coins were at three *dāngs* of the 4.30-gram mithqal or 2.15 grams.

The section of Ufrat was newly formed on the plateau south of the Saljuq stronghold. The centre was the former Artuqid capital of Khartapirt, which after starting with the single produced only the double unit later in the year and in 700 and 702 H. The area that it administered lay southwest. It included the single unit mints of Malatiya and Marʿash, but they struck coins for only 700 H. Table 10.3 indicates the activity in the Rum and Ufrat regions.

Table 10.3 Anatolian region

Date	*Rum*		*Ufrat*		
	Siwas	*Arzanj*	*Khartpirt*	*Malatiya*	*Mar'ash*
698	Au(4)[1]	s[2]			
		D[3]			
699		(21 s) s[4]	s[6]	s[8]	s[9]
		D[5]	D[7]		
700		D[10]	D[11]		
701		D[12]			
702		D[13]	D[14]		
703		D[15]			

Notes
Au – gold; s – single silver; D – double silver; ( ) – multiple.
1 Yapi ve Kredi Bankasi 10458; 8.50 grams.
2 Yapi ve Kredi Bankasi 10530; 2.18 grams.
3 Steve Album, private collection; 4.38 grams.
4 Münzsammlung (Munich) 84756; 2.19 grams.
5 Steve Album, private collection; 4.36 grams.
6 Yapi ve Kredi Bankasi 10571; 2.18 grams.
7 Yapi ve Kredi Bankasi 10568; 4.30 grams.
8 Yapi ve Kredi Bankasi 10744; 2.02 grams.
9 Yapi ve Kredi Bankasi 10636; 2.30 grams.
10 Kunsthistorisch Museum (35) 4.650; 4.28 grams.
11 Bora Etkar, private collection; no weight.
12 Yapi ve Kredi Bankasi 10540; 4.30 grams.
13 American Numismatic Society 17.216.1580; 4.16 grams
14 Yapi ve Kredi Bankasi 10574; 4.18 grams. It has a 700 H reverse.
15 Yapi ve Kredi Bankasi 10543; 4.20 grams.

The third district was a united Irminiya and Gurjistan, which lay between Arzanjan and Nakhchavan. The territory was organized through Arzan al-Rum. Arzan al-Rum administrated the new Armenian mints of Ani, Qars and Khilat, all producing the single unit silver coin in the first part of the year of 699 H. Arzan al-Rum, itself, now finally struck coinage, issuing the single silver. However in 700 H, its region collapsed. By the end of the year, signs of change emerged as the city switched to minting only the double unit but operated in isolation. Part of the disintegration was due to Georgia. The ruling family of Arzan al-Rum traditionally had been connected to that of Tiflis. It was a tenuous hold, however, since the situation in Gurjistan was extremely unsettled and affected the whole area. David VIII of Gurjistan had been afraid of Nawruz and had not personally come to receive his investiture from Ghazan. A form of resolution to the problem came in 698 H when David formally handed over Tiflis to Ghazan. Consequently, in early 698 H, David had a joint issue with Ghazan, which contained a curious mixture of the Christian profession of faith and David's royal monogram on the obverse with Ghazan's imperial reverse.[88] However, ever hesitant, David moved into mountain fortresses and kept vacillating about his loyalty to Ghazan, making several overtures

to the Golden Horde. As a result, Ghazan put David's younger brother, George, on the throne. The new ruler issued Ghazan's complete reform type within the same year and into the first part of 699 H. Later in 699 H, George also felt insecure and moved west to Akhaltsikhe in Samiskhe. Trying to establish its hegemony over Gurjistan, Akhaltsikhe quickly followed the lead of Arzan al-Rum and issued the single. George's new domain continued to mint Ghazan's coinage with a legible date in 700 H.

During this period, David, George and another brother, Wakhtang, were jostling for territory. Of the three kings, Wakhtang took control of Tiflis and Dananisi in 701 H with George keeping Akhalsikh.[89] Wakhtang applied to David's special remit, first established under Arghun, and issued jointly in his own name and that of Ghazan in the year 701 H. He used the normal Mongolian reverse with Ghazan's name but returned to the Christian credo on the obverse containing his own name and the Georgian date. Moreover, he reverted to a unit weight of 2.33 grams, substantially above the reform one. It was this coinage to which Rashid al-Din referred. Wakhtang's coins of 701 H are the last known from Tiflis for Ghazan's period. Thus, in spite of Rashid al-Din's proclamations, direct financial regulation did not reach into all of Gurjistan after 700 H.[90] On the other hand, George's base in Akhlasikh allowed him to eventually regain control of the central province.[91] The struggle seems to have been successful in the last years of Ghazan's rule. There are many full reform coins from Tiflis but all with an intentionally blundered date. In the first year of Uljaytu's reign, George had full authority over a united Gurjistan so that Tiflis resumed minting the imperial coin with clear dates.

Because of the great confusion in Georgia as Wakhtang III vied for the throne of Khartli; Irminiya, in the south, regrouped itself. Old ethnic and dynastic identities re-surfaced, apparently too powerful to be submerged long under any Mongol hegemony. Irminiya broke away from Arzan al-Rum in 700 H. The new mint of Arjish became the centre, issuing the double unit for the next three years. At the height of the reform, it rotated silver production with one satellite mint, collecting taxes first in Van in 700 H and then in Ani in 701 H, each having the single. Arjish's extremely close and venerable neighbour, Khilat, also minted in both 700 and 701 H but only in the month of Rajab, the seventh month, or July and August respectively, presumably for some Christian celebration or pilgrimage. The region's central mint probably moved there for the occasion since Khilat (Akhlat) struck the double coin. Activity slowed down in 702 H when only Arjish minted, after which the region was silent in 703 H.

(2) The Jazira Another reason for the break-up of Arzan al-Rum's territory into Gurjistan and Irminiya in 700 H was due to a new responsibility for the diwan. Apparently, it was involved with preparations for Ghazan's second Syrian campaign. Certainly, the demise of one region coincided with the up-surge of another as the Jazira came on-stream in the following year of 701 H. Although the Jaziran mints had been some of the first allowed to produce in 698 H, two of those four had needed to start with pre-reform Ghazan dies. Jazira ibn 'Umar and Amid (Diyar

Table 10.4 Irminiya–Gurjistan

Date	*Gurjistan*			*Irminiya*				
	ArzanRum	*Tiflis*	*Akhalskh*	*Ani*	*Qars*	*Arjish*	*Khilat*	*Van*
698		s[1]						
699	s[2]	s[4]	s[5]	s[7]	s[8]		s[9]	
	D[3]		D[6]					
700			s[12]			D[13]		s[15]
	D (Ram)[10]	s?[11]					D Rajab[14]	
701	D[16]	s[17]				D[19]		
				s[18]			D Rajab[20]	
702	D[21]					D[22]		
703	D[23]							

Notes
s – single silver; D – double silver
1 Yapi ve Kredi Bankasi 10722; 2.12 grams.
2 Yapi ve Kredi Bankasi 10546; 2.13 grams. Many single unit coins were first struck to the old weight; e.g. Smithsonian Institution 75.46.0106; 2.26 grams.
3 Yapi ve Kredi Bankasi 10544; 4.25 grams.
4 American Numismatic Society 66.126.77; 2.00 grams.
5 Yapi ve Kredi Bankasi 10670; 2.20 grams.
6 Yapi ve Kredi Bankasi 10672; 4.25 grams.
7 Yapi ve Kredi Bankasi 10499; 2.05 grams.
8 Çunayt Ölcer, private collection; no weight.
9 American Numismatic Society 43.163.345; 2.38 grams.
10 Ashmolean Museum 128; 4.52 grams.
11 American Numismatic Society 00.999.11287; 2.04 grams.
12 Bora Etkar, private collection; no weight.
13 Steve Album, private collection; 4.18 grams.
14 American Numismatic Society 17.215.1818; 2.20 grams.
15 Steve Album, private collection; 2.08 grams.
16 Yapi ve Kredi Bankasi 10549; 4.30 grams.
17 American Numismatic Society 36.41.20; 2.15 grams.
18 Münzsammlung (Munich) 85359; 2.16 grams.
19 Hermitage 3; 4.07 grams.
20 Yapi ve Kredi Bankasi 10527; 4.30 grams.
21 Steve Album, private collection; 3.00 grams.
22 Steve Album, private collection; 4.08 grams.
23 Steve Album, private collection; 3.96 grams.

Bakr) had used the former Tabriz type from 694 H, in which his name had been spelled with a *qāf*. However within the year, Jazira ibn ʿUmar received the current hub and finished its season in early 699 H, minting the single unit. Unfortunately, Amid, Jazira ibn ʿUmar's neighbour to the northwest had not struck at the reform weight and did not acquire a new die, so it ceased after its one minting in 698 H.

Nevertheless, the main mint of the Jazira was moved to al-Mawsil, which began to strike in the second half of 698 H. First, it used Baghdadi and then Tabrizi dies

before it made its own, striking the single over the cusp of 698–9 H. In spite of probably initially receiving dies only from the passing *urdu*, it now minted continuously in contrast to the varied schedules of other mints in the region. It was this sustained activity that announced its financial leadership once again of the region. Mardin, however, was not far behind and also began to mint the single over the 698–9 H season. It was therefore, these four towns that were the first to be assessed for taxes.

After this start, the regional agent in al-Mawsil travelled later in 699 H to Sinjar and Irbil, both of which minted the single silver over the period of 699–700 H. It was at this point that the Arzan al-Rum agents probably arrived. Then for the second part of 700 H and the first part of 701 H, Mardin, al-Mawsil and probably Jazira ibn ʿUmar all minted the single according to schedule. However, al-Mawsil also struck gold in late 700 H, which coincided with the movements of Ghazan and his army. They had marched through the area on their way to Syria, leaving Tabriz in Safar and turning back to Sinjar by the end of Jumada I, the fifth month, of 700 H. It seems that his presence had caused al-Mawsil to strike the unique gold issue. Although the hectic activity followed his return by some months, other mints seem to have been equally affected by his move albeit in a less spectacular manner. For example, Mayafarraqin produced a double silver issue in 700 H. Moreover, in 701 H, Siʿird and Hisn Kayfa minted for the first time in the reign several months after Ghazan had left Sinjar and entered the eastern area in mid-Ramadan of 700 H. Although he ordered a number of punitive encounters against the local inhabitants, they continued to be a problem to enrol on the tax register. These three cities stopped minting after their silver issues. On the other hand, later, in 701 H, the southern cities of Irbil and Sinjar struck the single on schedule. However, for some reason, they broke off the next year in 702 H even though Ghazan was in Sinjar early in the year. Later in 702 H, Ghazan gave Mardin's ruler special recognition by bestowing on him the title of sultan. It was at this point, it seems, that Mardin issued copper with the vassal's name. Continuing his travels, Ghazan reached Irbil in late 702 H, at which time it made up its arrears and struck the single in early 703 H. After this admonishment to Irbil, in 703 H Siʿird also minted again. Meanwhile, as it tried to control this area, al-Mawsil once again enjoyed striking gold over 700–1 H. At this point, it also changed its policy about silver by not going back to the single. Instead, it issued the double unit over the cusp of 701–2 H. By doing so, it and its neighbours, Sinjar and Irbil, supplied a full compliment of reform gold and silver coinage from 700 into 702 H. This brief review suggests that the region, politically sensitive because of its close connection to northern Syria, required major attention from the court. More than likely, the emphasis on revenue at this point was to help pay for the Syrian campaign and stabilize the trade route.

Ghazan's extended visit to the Jazira led to a new policy. As the year of 701 H saw the greatest monetary activity of the reform, it reflected the need for strong leadership in such a crucial area. That necessity is the main evidence for the arrival of seasoned administrators from Arzan al-Rum. The added manpower allowed the

number of sites to increase and production to be organized among all of them. As in Greater Rum, the three main mints formed sub-regions: al-Mawsil had Sinjar in the west and Irbil in the east; Mardin had Amid and Mayafarraqin in the north and its Artuqid cousin of Hisn Kayfa in the east while Jazira ibn ʿUmar had Siʿird in the east. They were all at the single unit except for al-Mawsil, which showed its superior status by issuing double silver and gold. As for the schedule, minting occurred in alternate years for Jazira ibn ʿUmar and Mardin. al-Mawsil started out that way and then changed but also had responsibility for Sinjar and Irbil, which produced in alternate years. Thus, in 700 H, the centres moved from equal status to having al-Mawsil taking on the role of leader, producing higher value coinage yearly. However, the hit-and-miss schedule of the other mints was often in response to Ghazan's presence.

The Jazira's financial administration reflected its geographic position between two other important regions. One indication of its status was the production of the single unit at most cities and the double at the chief mint in 701 H, copying the organization of Arran and Anatolia. However, the structure also resembled that of ʿIraq-i ʿArab with equal weight standards for all mints and gold for the capital. The height of the reform in the Jazira was achieved in 701 H, as described above, and best represents its structure. Unfortunately, after that date, a decline immediately occurred with only two mints in 702 H, the reliable entrepots of al-Mawsil and Mardin and two different mints in 703 H, as depicted in Table 10.5.

NORTHEASTERN TIER, 699 H

The timing of the development of both Greater Rum and the Jazira emerged from military campaigns; nevertheless, other regions of the empire progressed on schedules set by civilian agendas. The other two main areas were similarly adjacent to the royal centres of Baghdad and Tabriz and were refined in 699 H. One of these was the large northeastern tier, which was further divided into two areas, ʿIraq-i ʿAjam and Greater Khurasan. Its production model had all mints issuing the same weight of coin, which was usually the double unit.

(1) ʿIraqi-i ʿAjam The first of the sub-regions the diwan developed was ʿIraq-i ʿAjam. It had three main areas, ʿIraq-i ʿAjam proper, Greater Luristan and then Lesser Luristan. The area started minting at the outset of the reform in 698 H, probably first at Hamadhan but closely followed by Kashan. Both had struck at the edict weight in late 698 and early 699 H. Then, as the diwan gained strength, the structure became more complex; and a part of it went to Khurasan. At the same time in early 699 H, the part that stayed in ʿIraq-i ʿAjam seems to have moved from Hamadhan through Sawa, which also minted at the single silver unit. There, the agents divided, one section of them going to Kashan and another to Isfahan, both cities striking the single. In the middle of 699 H, however, there was a change in policy. Both Kashan for ʿIraq-i ʿAjam and Isfahan for Greater Luristan upgraded from the single to the double unit. This signalled the full re-integration of the

Table 10.5 The Jazira

Date	*Jazira*	*Siʿird*	*Mawsil*	*Sinjar*	*Irbil*	*Mardin*	*Hisn*	*Amid*	*Mayf*
698	s[1] s[2]		s[3]			s[4]		s[5]	
699	s[6]		s[7]			s[10]			
				s[8]	s[9]				
700				s[13]	s[14]				
	*		s[11] Au[12]			s[15]			D[16]
701	s[17]	s[18]	Au[19]	Au[21]		s[24]	s[25]		
			D[20]	s[22]	s[23]				
702			D[26]						
						Ac[27]			
703		s[28]			s[29]				

Notes

Au – single gold; s – single silver; D – double silver; * – probable minting

1 Ashmolean Museum 136; 2.49 grams. The reverse has *Pād-i Shah-i Jahān*, and the obverse has the normal square cartouche with the mint and date.
2 Yapi ve Kredi Bankasi 10569; 2.17 grams.
3 Yapi ve Kredi Bankasi 10651; 2.12 grams.
4 Yapi ve Kredi Bankasi 10596; 2.20 grams.
5 American Numismatic Society 75. 73. 96; 2.43 grams. The reverse has *Pād-i Shāh-i Jahān/ Sulṭān ʿĀẓam*, and the obverse has the normal square cartouche with the mint and date.
6 Yapi ve Kredi Bankasi 10514; 2.15 grams.
7 Smithsonian Institution 75.46.0109; 2.08 grams.
8 Münzsammlung (Munich) 85108; 2.10 grams.
9 American Numismatic Society 1001.2.113; 2.01 grams.
10 Yapi ve Kredi Bankasi 10643; 2.10 grams.
11 American Numismatic Society 17.216.1621; 2.08 grams.
12 Biliothèque Nationale, no number or weight.
13 Yapi ve Kredi Bankasi 10685; 2.12 grams.
14 Münzsammlung (Munich) 94408; 2.14 grams.
15 Hermitage 10; 2.04 grams.
16 Steve Album, private collection; 4.08 grams. The mint is uncertain.
17 Yapi ve Kredi Bankasi 10515; 2.01 grams.
18 American Numismatic Society 59.165.266; 1.96 grams.
19 Biliothèque Nationale, no number or weight available.
20 Yapi ve Kredi Bankasi 10555; 4.25 grams. It has a 700 H obverse.
21 Bibliothèque Nationale, no number or weight available.
22 Steve Album, private collection; 2.16 grams.
23 Yapi ve Kredi Bankasi 10524; 2.02 grams.
24 Steve Album, private collection; 2.12 grams.
25 Yapi ve Kredi Bankasi 10582; 1.82 grams.
26 Yapi ve Kredi Bankasi 10556; 4.25 grams.
27 Yapi ve Kredi Bankasi 10763; 1.75 grams. There is no date. It has the standard Ghazan reverse with Najm al-Din Ghazi's (693–712 H) name in the margin of the obverse.
28 American Numismatic Society 21.54.76; 2.09 grams.
29 Steve Album, private collection; 4.11 grams, with jewellery ring.

Hazarsap dynasty of Greater Luristan into Mongol administration after Ghazan had ordered the murder of Afrasiab in 695 H. The new ruler now had the government's full confidence, which provided him with regional status. Immediately, the agent in Isfahan sent a contingent to Firuzan, which also struck the double unit. Both places continued to mint jointly until Muharram, the first month, of 700 H and again in the first part of 701 H. In contrast, at the same time in Muharram of 700 H, Hamadhan and Kashan minted the single silver unit; but all the coinage was in great celebration of the turn of the century. After the festivities, the main diwan returned to Kashan, which spread its control over Sawa. They both issued the double for their taxes from 700 into 701 H. Only Hamadhan continued to issue the single for 701 H, apparently in accordance with a separate schedule of minting in the first part of each year. As a result of all this activity, a great deal of money was created in ʿIraq-i ʿAjam that year; but to crown the success, later, Isfahan suddenly had a rare issue of gold at four times the edict weight. Some great event, perhaps Ghazan's thirtieth birthday,[92] occasioned the issue. Whatever the cause, the resources of the entire area seem to have been commandeered for the celebration since no other city in the sub-region struck any silver after this point for a year. Later, Kashan and Isfahan paid the tax of 702–3 H in their normal double unit. In conclusion, the best period of development occurred from late 699 to early 701 H, about two years. After the first part of 701 H, however, only Kashan and Isfahan continued to operate, each proclaiming its equal status.

The adjacent region of Lesser Luristan had grandly encompassed the reform from the beginning in 698 H with a double gold from Shabistar, the capital. Not much is known after that date until 700 H when Lur-i Kuchuk struck the single, the coin citing the region rather than the capital. The issue matched the activity elsewhere in celebration of the new century. Then in the following year of 701 H, a pre-reform type appeared on copper from Shushtar or Tustar. This is also the date for the re-implementation of the Christian obverse in Tiflis and just before the copper from Mardin. With the change in imperial policy, which allowed more freedom to dynastic regions, coinage paradoxically came to a halt in Lesser Luristan. Monetary production for the whole area of ʿIraq-i ʿAjam is represented in Table 10.6.

(2) Greater Khurasan After establishing ʿIraq-i ʿAjam in early 699 H, the top level of the diwan moved east to Greater Khurasan. There, it revived the three sub-regions of Dhihistan–Mazandaran, Shahristana and Central Khurasan in late 699 H.

The first mint in Dhihistan had already been established in 698 H as Kabudjama issued a pre-reform type of Ghazan. This series was probably struck from its own previous die, but no coins earlier than this date are known yet for this type. The two top lines of Uighur script were followed by *Pād-i Shāh Qā'ān/Ghāzān*, the Persian and Mongol titles he had assumed in 695 H; but neither had been attached to the other at that point by any known mint. To start, Khabudjama issued the single and then the double, which now became the normal unit. This change signalled that a senior minister had probably arrived by the second half of the tax year or early 699 H and brought the reform dies. Then, the diwan moved to

Table 10.6 ʿIraqi-i ʿAjam

Date	*ʿIraqi-i ʿAjam*			*Greater Luristan*		*Lesser Luristan*	
	Hamadhan	*Sawa*	*Kashan*	*Isfahan*	*Firuzan*	*Shabistar*	*Shushtar*
698						Au(2)[5]	
	s[1]		s[2]				
699	s[4]	s[5]	s[6]	s[8]			
			D[7]	D[9]	D[10]		
700	s (Muh)[11]		s[13]	D (Muh)[15]	D (Muh)[16]	s[17]	
		D[12]	D[14]				
701	s[18]	D[19]	D[20]	D[21] Au(4)[22]	D[23]		Ae(2)[24]
702			D[25]	D[26]			
703			D[27]	D[28]			

Notes

Au – gold; s – single silver; D – double silver; Ae – copper; ( ) – multiple

1 Yapi ve Kredi Bankasi 10748; 2.12 grams.
2 Steve Album, private collection; 2.08 grams.
3 Steve Album, private collection; 4.31 grams.
4 Yapi ve Kredi Bankasi 10576; 2.15 grams.
5 American Numismatic Society 72.131.8; 2.17 grams. The last digit of the date is off the flan.
6 American Numismatic Society 36.41.12; 2.16 grams.
7 Yapi ve Kredi Bankasi 10742; 4.30 grams.
8 Yapi ve Kredi Bankasi 10587; 2.17 grams.
9 Yapi ve Kredi Bankasi 10584; 4.30 grams.
10 Yapi ve Kredi Bankasi 10551; 4.25 grams. There is a possible reading of *Safar*.
11 American Numismatic Society 30.168.86; 2.15 grams.
12 Steve Album, private collection; 4.23 grams.
13 Bibliothèque Nationale M 1654; 2.43 grams.
14 American Numismatic Society 74.240.44 Hoard; 4.27 grams.
15 American Numismatic Society 63.192.5; 4.20 grams.
16 Steve Album, private collection; 4.26 grams.
17 Steve Album, private collection; 2.15 grams. The mint reads *Lūr-i Kuchuk*, whose capital was Shabistar.
18 Yapi ve Kredi Bankasi 10578; 2.13 grams.
19 Yapi ve Kredi Bankasi 10580; 4.25 grams.
20 Yapi ve Kredi Bankasi 10601; 4.20 grams.
21 Yapi ve Kredi Bankasi 10592; 4.15 grams.
22 Bibliothèque Nationale M 1115; 8.79 grams.
23 Yapi ve Kredi Bankasi 10553; 4.15 grams.
24 British Museum 19730.162.13; 3.18 grams. The reverse has *Pād-i Shāh-i Humayun*; and the obverse, inside a linear square, has *al-Mulk li-llāh* with the mint and year outside.
25 American Numismatic Society 53.171.24; 4.18 grams.
26 Yapi ve Kredi Bankasi 10593; 4.20 grams.
27 Kunsthistorisches Museum (41) 7.713; 4.25 grams. It has a 702 H reverse.
28 Hermitage 28611; 4.25 grams.

Damaghan in late 699 H and carried the reform dies with it, changing only the mint name and continuing to strike the double silver unit. By then, it had organized the province; and, in the first part of 700 H, it started its rounds, moving from Damaghan to the second city of the province, Bistam. From there, it moved on to Astarabad. At first, the city issued only the single. Then, over the cusp of 700–1 H, which included Muharram, it struck the double silver coin. The diwan migrated back to Damaghan early in 701 H to continue its rotating schedule. However, it produced only the single there. Then in the middle of 702 H, it returned to Astarabad for the next tax season, starting in Rajab, the seventh month, and continuing into 702 H. However, the diwan did not travel back to Damaghan as expected since minting ended. Nothing came from any part of Dhihistan–Mazandaran in 703 H. Although the initial mint had been at the local dynast's seat, the Mongol administration later collected its taxes mostly from Damaghan and Astarabad and alternated collection between them. The height of the programme in the province occurred in 700–1 H, as outlined in Table 10.7.

On its way from ʿIraqi-i ʿAjam, the diwan seems to have progressed through al-Rayy in late 699 H as the first Mongol production from the region occurred there. The issue was the single unit as with Kabudjama in 698 and ʿIraq-i ʿAjam at this date. Then, the agent may have headed north to Shahristana. The reform reached that region probably late in 700 H at the height of activity elsewhere in Greater

Table 10.7 Dhihistan–Mazandaran

Date	*Khabud*	*Damaghan*	*Bistam*	*Astarabad*
698	s[1]			
	D[2]			
699	*			
		D[3]		
700			D[4]	s[5]
				D[6]
701		s[7]		D (Muh)
				D (Raj)[8]
702				D[9]
703				

Notes
s – single silver; D – double silver; * – probable minting.
1 Steve Album, private collection; 2.50 grams.
2 American Numismatic Society 80.141.14; 4.01 grams. The type is unique with a quatrefoil cartouche on the reverse containing only two lines of Uighur script followed by *Pād-i Shāh* and *Ghāzān* in Arabic script, copying Astarabad's lead in 695 H.
3 American Numismatic Society 74.240.28 Hoard; 4.33 grams.
4 Steve Album, private collection; 4.36 grams.
5 Steve Album, private collection; 2.13 grams.
6 Steve Album, private collection; 4.31 grams.
7 American Numismatic Society 72.131.1; 2.14 grams.
8 Steve Album, private collection; 4.35 grams. Various coins have the months of Muharram with 700 H on the obverse or Rajab and plain without a month.
9 Steve Album, private collection; 4.29 grams. It has a 701 H obverse.

Khurasan. The centre was Abiward, which minted the double coin in 70x H, the last number being off the flan. Another mint, perhaps Nisa, struck the single unit. There is only one coin known from each of these mints as listed in Table 10.8, so activity seems to have been limited in the area. Significantly, these mints were extremely close to Chaghadaid territory and indicate the success of Ghazan's military forces in securing the area.

After Shahristana, the agent seems to have moved down to Central Khurasan, which was divided into western and eastern sections. He went first to Sabzavar, which struck the single in early 700 H. After that, again as in ʿIraq-i ʿAjam, the diwan imposed a new order requiring more mints and higher units. al-Rayy, Isfara'in, Jajarm, Sabzavar and probably Jurjan struck at the double unit for the tax year over 700–1 H. The issue from Jajarm gives Shaʿban, the eighth month, or April, which suggests the beginning of the season. So far, no coin has surfaced for 700 H from Jurjan or from Isfara'in in 701 H, but they probably mined. The record shown in Table 10.9 indicates that the imperial agent was active in the region for only one complete revenue collection.

The other section of Central Khurasan consisted of the old Mongol centres of the rival cities of Tus and Naysabur. It was also formed in 700 H and was an anomaly since it specialized in half and single silver units. In the first part of 700 H, both mints issued the single piece. Later in the year, they struck only half units, which came close to the weight of Bukharan coins. Then late in 701 H, the mints closed along with the others in the area. Naysabur may have issued gold in 701 H, doing so at the same time as al-Mawsil and the exceptional issues in Isfahan as well as Bardhaʿ at some time in this period. Although all of these gold issues seem difficult to explain, they do provide further evidence of the timing of Rashid al-Din's report of Ghazan's reform. Only in this year could some people all over the realm have had the possibility of access to gold coinage. Moreover, the various issues are added evidence to the other aberrant types from Mardin, Gurjistan and Lesser Luristan of a change in central policy. It is not clear if a new direction was

Table 10.8 Shahristana

Date	*Abiward*	*Nisa*
698		
699		
700	D[1]	s[2]
701		
702		
703		

Notes
s – single silver; D – double silver.
1 Steve Album, private collection; 4.37 grams. The date is 70x H.
2 Steve Album, private collection; 2.15 grams. The condition of the coin provides an uncertain reading of the mint, and the date is unclear.

Table 10.9 Central Khurasan

Date	*Rayy*	*Sabzavar*	*Isfara'in*	*Jajarm*	*Jurjan*
698					
699	s[1]				
700		s[3]			
	D[2]	D[4]	D[5]	D (Sha^{c}ban)[6]	*
701	D[7]		*	D[8]	D[9]
702					
703					

Notes
s – single silver; D – double silver; * – probable minting.
1 Münzsammlung (Munich) 84752; 2.03 grams. The date is unconfirmed.
2 Yapi ve Kredi Bankasi 10567; 4.28 grams.
3 Yapi ve Kredi Bankasi 10682; 2.18 grams.
4 Steve Album, private collection; 4.25 grams.
5 Steve Album, private collection; 4.32 grams.
6 American Numismatic Society 74.240.25 Hoard; 4.36 grams.
7 Steve Album, private collection; 4.39 grams. It has a 700 H obverse.
8 Steve Album, private collection; 4.19 grams.
9 Steve Album, private collection; 4.28 grams.

being tested or if the old policy was simply failing. Whatever the cause, less activity ensued across the realm in 702 and 703 H. The old Mongol centres joined the rest of the Greater Khurasani mints and closed. Presumably, the diwan headed back to the royal *urdu* for new instructions.

Thus, to recapitulate, in the section of the northeastern tier of Shahristana, Dhihistan and Khurasan in 698 H only one mint, Khabudjana, had operated but for only one year. In 699 H, the government may have retreated to al-Rayy. Then it sent a forward contingent to Mazandaran. In Damaghan, it changed policy, upgrading the unit to the double and sending agents out to other areas. By 700 H, minting activity in the whole area significantly materialized as, all of a sudden, ten mints opened. However, for the tax period of 701–2 H, this number fell to two, namely Astarabad and Naysabur, and then to nothing. For so large and important an area, such quiet was ominous.

SOUTHWESTERN TIER

The third major region consisted of the southwestern area of ^{c}Iraq-i ^{c}Arab, Fars and its sub-region of Yazd. The salient point that identified its structure was that the centre issued gold. The tier had played a key role in starting the reform, and its developments suggest the reason for the reform's demise.

(1) ^{c}Iraq-i ^{c}Arab The master territory was ^{c}Iraq-i ^{c}Arab. Initially, Baghdad was part of the royal mint structure; but in late 699 H, since Ghazan was elsewhere, it began

Table 10.10 Traditional Mongol centres

Date	*Tus*	*Naysabur*
698		
699		
700	s[1]	s[3]
	½[2]	½[4]
701		Au[5]
702		
703		

Notes
s – single silver; D – double silver.
1 Steve Album, private collection; 2.14 grams.
2 American Numismatic Society 22.211.288; 1.05 grams. There is no date.
3 Steve Album, private collection; broken.
4 American Numismatic Society 63.171.7; 1.06 grams.
5 Not confirmed but reported from Bibliothèque Nationale; no weight.

to administer ^{c}Iraq-i ^{c}Arab and Fars. In that respect, it returned to the pattern established by Hulagu at his military occupation. Originally, he had made the general, Suqunchaq, attending the conquest of Baghdad, the military governor of both ^{c}Iraq-i ^{c}Arab and Fars.[93] Then ^{c}Ata Malik Juvayni was the civilian governor of Baghdad, and later he was appointed lieutenant to the *noyan* or Mongol military governor of both ^{c}Iraq-i ^{c}Arab and Fars.[94] This arrangement continued under Abaqa. The connection seems to have been abrogated after 670 H; and in 687 H, Arghun had re-arranged this territorial alliance. However, Ghazan now re-established it in 700 H.

In Baghdad's immediate individual history, it had minted both single and double silver in 698 H. It continued to do so in the beginning of 699 H, then followed the policy started by the other two royal mints the year before and issued gold as well. However, notably, it announced a revision by issuing gold at quadruple the decreed weight or at 8.48 grams. It maintained the same policy for the season of 700 and 701 H. Then in 702 H, Baghdad issued only the double silver and no longer struck any gold. The decline continued drastically in 703 H as the city issued nothing at all.

As for the region Baghdad administered, the city's added duties became apparent in late 699 H because of Ghazan's absence. In 699 H, it struck all the types for the region, that is the single and double silver unit and gold at four times the unit weight. Baghdad also had a remarkable silver issue in 699 H at six times the unit weight. Then it divided its role. Late in 699 H, Mansuriya Saray, a suburb of Baghdad, began the regional policy by issuing the single silver. The next year, it moved up to the double, which set the pattern for the other regional mints. In 700 H, at first al-Wasit issued the single. Then at that point, the double was ordered for the last part of the year as it, al-Hilla and al-Basra struck the multiple in 700 H. Then this sub-division ceased to exist.

At the end of 700 and into 701 H, Baghdad asserted its role as capital by issuing all of the types and metals. At the end of 701 H, it struck another sextuple issue, this time in gold. Soon thereafter in Rabi' II or the fourth month of 702 H, Ghazan was finally back in the al-Wasit region. In response, the city issued a sextuple in silver. Then al-Wasit struck only the double silver in 702 H; and Baghdad did the same, a substantial reduction of output from its previous three years. Then all went silent. In the following year, the khan was ready to return to Baghdad. However, he fell ill, and the former policy was not re-instated. Therefore, after 702 H, minting ceased in all of 'Iraq-i 'Arab, as noted in Table 10.11.

(2) Fars The second territory in the south was Fars, which had a sub-region in Yazd. As with other areas close to the royal mints, the capital, Shiraz, minted silver in 698 H at the single unit. After the Syrian campaign of 698 H, the agent attempted to monetize the economy further by converting the *tughār* tax-in-kind for the army to coin. It was levied at one-tenth of the standard produce rate. This conversion policy was also applied to Darabshard, a semi-independent region of eastern Fars. There, Ghazan imposed a rate of 20 *tumans*, which was calculated by adding one dinar to each 10 dinars of value to the previous tax, and sent an agent from the *urdu* to Shiraz to regulate it. The levy in this area was based on the land tax, *tebghur*,[95] which seems to have included the mining industry. The area had gold and silver mines as well as iron and mercury resources. No specific

Table 10.11 'Iraq-i 'Arab

Date	*Bagh*	*Man S*	*Wasit*	*Hilla*	*Basra*
698	s D				
699	Au(4) s D				
	s(6)[1]	s[2]			
700		D[3]	s[4]		
	Au(4) s D		D[5]	D[6]	D[7]
701	Au(2) s D				
	Au(6)[8]				
702		D(6)[9]			
	D	D[10]			
703					

Notes

Au – gold; s – single silver; D – double silver; ( ) – multiple.

1 Kunsthistorisches Museum (34) 4.577; 12.52 grams.
2 Münzsammlung (Munich) 85484; 2.18 grams.
3 Steve Album, private collection; 4.34 grams.
4 American Numismatic Society 30.999.93; 2.02 grams.
5 American Numismatic Society 74.240.35 Hoard; 4.26 grams.
6 American Numismatic Society 17.215.1736; 4.27 grams.
7 Ashmolean Museum 134; 4.27 grams.
8 Welch, No. 554; 12.92 grams.
9 Sotheby Auction Catalogue, April 1982, lot 187; 12.57 grams.
10 Yapi ve Kredi Bankasi 10729; 4.20 grams.

coinage from the area itself has come to light because the agent's work may well have added to Shiraz's massive output. Although in another case from the same time, the chronicles state that the reform failed,[96] the coinage shows that from 699 H on, a great deal more tax from the entire region was demanded and collected. Indeed, in 699 H, Shiraz continued to expand greatly its programme and minted in the two important sites of Abu Ishaq[97] and Ta'us. The higher tax revenue was reflected in the abandonment of the single unit as all three cities issued only the double silver. The capital then grew even more powerful and minted gold at twice the mithqal weight, probably in the last part of 699 H. Exuberantly, it allowed Ta'us to do the same within the year, a severe disparity of status according to the Arrani system. Indeed, the distinctly different ethos in the southern region now burst out of its long-endured straitjacket. After 699 H, any vestige of the Arrani pattern of management disappeared. The only balance in production was between the double silver and the quadruple gold coin, which Fars maintained for three years from mid-699 through mid-702 H. More precisely, in 700 H, Shiraz struck the double silver and quadruple gold in Muharram and again in Shawwal. After that in 701 H, the diwan moved to Abu Ishaq, in which it again struck the double silver and quadruple gold. In 702 H, only Shiraz minted but once more at its majestic quadruple weight in gold. Indeed by 702 H, the special nature of the series was highly evident since no auxiliary mints produced ordinary coinage; Fars provided only the most prestigious of types. To underscore its position, the Farsi design for all mint years and all locations had particularly attractive but flamboyant leaf tendrils in the areas outside the pentagon as illustrated in Plate 10.2. Then, like Baghdad, it was suddenly silent in 703 H.

The sub-sector of Yazd followed developments in the main province, producing silver in 699, 700 and 701 H always at the double unit. In 700 H, a year after Shiraz had started to issue gold, it did the same. Thus, the enclave had a three-year

Obverse

Reverse

Plate 10.2 Embellished reform type (Shiraz) (Date: Muharram 700 H; weight: 4.30 grams; metal: gold)

Source: By permission of S. Album. Double actual size.

period of activity, peaking in 700 H but ceasing after the next year. The whole region is presented in Table 10.12.

ʿIraq-i ʿArab and Fars each exhibited the same patterns of a capital from which the diwan migrated to lesser sites. There, the agent minted the same weight as the main mint, sometimes only in silver and sometimes in gold or both. Beginning in 699 H, production of units and metals was balanced in Baghdad, the single and double unit silver coin being augmented by the quadruple gold coin. In Fars, it was the double silver challenged by the quadruple gold. Nevertheless, the consistent production of high multiple coins was most unusual. The enigmatic policy for the southern tier seems difficult to relate to an internal monetary programme. Indeed, production in this region after 699 H would have allowed Rashid al-Din to state that gold was in everybody's hands. It was hyperbole, however, since this gold was much more valuable than most people could have possibly afforded.

The source of most of the gold was not only mining activity but also the commerce with Egypt and India. The agent in Fars, Jamal-al-Din, had been appointed by Arghun about 689 H/1290 AD, and his revenue came chiefly from

Table 10.12 Fars

Date	*Yazd*	*Shiraz*	*Abu Ishaq*	*Ta'us*
698		s[1]		
699		D[3]	D[5]	D[6]
	D[2]	Au(4)[4]		Au(4)[7]
700	D[8]	D (Muh/Shaw)[10]		
	Au[9]	Au(4) (Muh/Shaw)[11]		
701	D[12]		D[13]	
			Au(4)[14]	
702		Au(4)[15]		
703				

Notes

Au – gold; s – single silver; D – double silver; ( ) – multiple.

1 Yapi ve Kredi Bankasi 10698; 2.12 grams.
2 Steve Album, private collection; 4.32 grams.
3 Bibliothèque Nationale M 1653; 4.18 grams.
4 Bibliothèque Nationale B 798; 8.45 grams.
5 American Numismatic Society 67.108.5; 4.29 grams.
6 Steve Album, private collection; 4.17 grams.
7 Islamic Museum (Cairo); no number; 8.55 grams.
8 American Numismatic Society 74.240.36 Hoard; 4.31 grams. It has a 699 H reverse.
9 Bibliothèque Nationale, no number, no weight.
10 Münzsammlung (Munich) 854043; 4.28 grams. This example has the month of Muharram. Shawwal is on other examples.
11 For Muharram, Sotheby Auction Catalogue, May 1986, lot 614; 8.68 grams, and Münzsammlung (Munich) 854043; 4.28 grams. For Shawwal, Sotheby Auction Catalogue, October 1982, lot 338; 4.27 grams and Sotheby Auction Catalogue, May 1986, 613 b; 8.47 grams.
12 Steve Album, private collection; 4.31 grams.
13 Bibliothèque Nationale 1970.446; 4.23 grams.
14 Sotheby Auction Catalogue, May 1986, lot 615; 8.75 grams.
15 Sotheby Auction Catalogue, April 1983, lot 107; 8.45 grams.

taxes on trade over land and sea and the pearl fisheries.[98] After suffering under the mal-administration of Ghazan's first period, in which Jamal al-Din had been charged with misappropriation of state funds, he had been re-appointed by Ghazan in 696 H/early 1297 AD. At that point, not only was Fars under his authority but Baghdad, Qays and Bahrain were added to it. After a rival had failed in an attempt to gain the appointment in 698 H,[99] Jamal al-Din by 700 H had signed an important treaty with the ruler of Malabar. Within the immense activity that existed between western India and the Persian Gulf, one of the most consistently lucrative items was horses, especially those from Bahrain. This trade had started with the Salgurid atabag, Abu Bakr, and had grown to amazing proportions due partially, unfortunately, to a high death rate of the horses once in sub-tropical India. It was reputed by the contemporary, Wassaf, that the gold to pay for them was expropriated from the Hindu temples and from a "tax upon the courtesans attached to them ...".[100] Further, Indian goods presumably entered the gulf entrepots for the next leg of shipment to Egypt as well as to the interior of the empire. Undoubtedly, in the last period of Ghazan's reign, gulf trade was a main source of revenue.

All seemed well in the south. Nevertheless, both gold and silver had grown to double and quadruple units. Trade was burgeoning; nevertheless, the joint march to higher and higher weights, fewer and fewer coins and almost a monopoly on gold coinage was leading to a crisis point.

Review

In conclusion, the application of Ghazan's monetary reform started with the royal mints of Baghdad, Tabriz and Bazar. This triumvirate begat another one so that coinage and perhaps taxation became decentralised. The first division started in Greater Arran in 698 H; and it again covered three areas, those of Adharbayjan, Jilan and Arran. In 699 H, the policy spread to three more areas, that of Anatolia with its sub-areas of Irminiya, Rum and Ufrat, of ʿIraq-i ʿAjam with the Luristans and of ʿIraq-i ʿArab with Fars and Yazd. In 700 H, a major shift took place in which the agents from established regions extended control over new ones. The ʿIraq-i ʿAjam diwan transferred to the far northeast, in which it established the three regional divisions of Dhihistan, Shahristana and Khurasan. In the same year, the Arzan al-Rum diwan moved to the Jazira, arriving there by 701 H. Thus, Ghazan's monetary reform had practically the same number of mints in 699 H as in 700 H, namely about fifty. The number remained the same as the previous year even though some sites from 699 H had closed, principally six in Rum and two in Fars, because the focus had switched to Khurasan, the Jazira and ʿIraq-i ʿArab. The year 700 H was the height of the reform; but, in 701 H in every part of the realm, the reform had spent itself with more than a twenty per cent reduction to thirty-seven mints in total. Then in 702 H, production dropped by half of that to nineteen sites. Examples from one extreme of the realm to the other include Rum, which had dropped from eleven mints in 701 H to six in 702 H, and Khurasan, which had gone from five to two in the same period. As the height of the reform

passed in 701 H, a number of curious issues in that year suggest that policy had changed to allow local affairs to surface. From then on, the reform was in decline. It was obvious that there were problems in the reform, perhaps of the goals themselves or the practices, which made Ghazan re-assess his policy; and, in 703 H, the reform came to a halt.

Administratively, the imperial diwan seems to have had three divisions, which were not, however, the old tri-partite geographical ones of west, centre and east. Those regions had been outgrown. Further, the manner of administration had been altered. Although the old regions had been established by the governor's personal arrival and activity had generally dissolved when he returned to Tabriz, the new policy was based on moving the headquarters on cue with the royal *urdu*. That policy was difficult enough to manage, but the massive undertaking of this reform stretched the diwan even more thinly. Evidence that the government had limited personnel comes from the displacement of bureaucrats from ʿIraqi-i ʿAjam to Khurasan and from Arzan al-Rum to the Jazira. Although this movement shows that the financial administrators had a fluidity of power in the provinces that matched previous regimes, they definitely expended more manpower on this reform than on any other. In fact, the right to make regional decisions led to the major aspect of the reform, namely the relative de-centralization of every region, each having its own production policy and schedule. Producing an empire-wide system under which local regions could operate was perhaps the last problem for the Mongols to overcome in creating an actively monetized state. This situation could have led to practically independent policies except that the ruler was in constant contact with the leading officials. The impetus to maintain close ties was the collection of tax for a unified state.

In other respects, Ghazan's youthful Khurasani training had given him a coterie of reliable administrators to form his government. In the province, he had ruled from a moving camp, Bazar-i Urdu. He followed the same method upon becoming khan; but on the road later, his new camp name was shortened to just Bazar. His observations of discord in the last year of his father's reign, the drifting political scene under Gaykhatu, the break-up of the territory under Baydu and his own struggles with Nawruz, both on the battlefield in Khurasan and in financial affairs in Tabriz, taught him to keep tight control over power. To do this, he personally covered wide stretches of his realm, making administrative decisions from his *urdu*. It was an aggressively nomadic administration, which permitted the creation of more active and viable sub-regions. As a result, the centre of Tabriz lost its role as the hub of financial affairs. Instead, it was Ghazan, himself, who controlled politics, the military and finances.

Only a cohesive administration with strong leadership could have produced such a reform; it was the determined political will that made it succeed. In turn, the economic reform had repercussions on politics, especially intra-Mongol relations. For example, economic strength had prompted Ghazan to insist on two points of allegiance from the Jochid ruler, Giyath al-Din Toqto'a (690–712 H/ 1291–1312 AD). One of these was Mongol, an annual payment, and the other

Islamic, Ghazan's name in his *khutba* and on his coinage. In the winter or middle of 702 H, at the time that Ghazan was in the region of al-Wasit, an embassy brought the Jochid response to the demands. Ghiyath al-Din rejected them and counter-claimed Arran and Adharbayjan for himself. Ghazan's reaction to such impudence was to imprison the delegates.[101] However, later in the year of 702 H, Ghazan realized that he had internal problems and could not enforce his demands. He released the embassy.

From the beginning of his reign and particularly during his great monetary reform, Ghazan re-affirmed and personally accepted Mongol global aspirations. Not only were the chief scripts of the Mongol realm, those of Arabic, Uighur and Chinese, put on his money; but over 100 mints, four times the total number at the height of Arghun's monetization, issued the same basic type and weight standard in both gold and silver. The universal ideal was brought into reality with amazing vigour and success. Ghazan had proclaimed these ideals in Persian on the first period coinage but had soon found the use of the local languages limiting. He then no longer considered himself only the *sulṭān* of the Muslims; rather, he proclaimed himself the heir to the entire Mongol Empire, even using the title *qā'ān* in the sensitive border area of Shahristana. Finally, he claimed his right from Heaven, his own *Tinger*. His new coinage announced this perception of divine and positive law. In addition, he used his conversion to Islam as an added weapon to control the Jochids, who were again moving on Gurjistan. Ghazan's partial conversion was in keeping with Mongol religious understanding; the local religion commanded the forces of Greater Iran. *Tinger*, however, as his reform coinage claimed, ruled the whole universe.

Uljaytu, 703–16 H

Ghazan died a peaceful death on 11 May 1303 AD, early Shawwal or the tenth month of 703 H, at the age of thirty-three. He left no male heir but had designated his brother to succeed him. However, appointing a successor was a local custom which did not always fit the strong steppe tradition of the Mongols. Nevertheless, Ghazan's brother, Kharbanda, had proven himself a capable governor in Khurasan and was politically adept, two points the steppe legacy required for accession. In fact, Kharbanda had to eliminate two possible rivals within a month of Ghazan's death.[102] He was only twenty-four when he was enthroned at Ujan on 19 July, fourteen days into the last month of Dhu al-Hijja in 703 H. He died at the age of thirty-six in 716 H.

The new khan was more strongly acculturated to the local milieu than Ghazan had been, which was announced immediately by his adoption of a throne name. Such a title was an uncommon practice for Mongols; only Gaykhatu had taken one before. He had chosen the Tibetan *Irinchin Turji* and had put both names on his coinage. In contrast, his nephew, Ghazan, had not felt the need for a personal throne name even though he had adopted various Persian and Islamic titles. Ghazan did, however, exhibit a renewed spiritual claim on his heritage as he called on "the

power of Heaven" to support him. In 703 H, Gaykhatu's mood joined Ghazan's religious sentiments as Kharbanda choose *Uljaytu*,[103] Mongolian for "Auspicious One".

Perhaps Ghazan's tumultuous acquisition of power had broken two time-honoured practices of a new khan. Neither Ghazan nor Uljaytu held a traditional *quriltai* at the beginning of their reign, nor did Uljaytu observe the mourning period to wait a year before his enthronement. Both practices, however, he largely honoured in spirit. In particular, the ruler and those concerned with the state seemed to consider that everything was in order, that nothing needed to be reviewed except for the confirmation of various posts, which took place at appropriate points and times within the next year. From outward appearances, then, Uljaytu continued both his life and that of the empire much as before.[104] As a result, he kept his brother's sahib diwan, Rashid al-Din, and most of Ghazan's policies.

One of these policies was a continuing effort to re-unite the Mongols. During Ghazan's last year, a pact among the other *uluses* had finally been arranged to facilitate trade and other common interests. In particular, the *uluses* now had linking post stations across the steppe. Uljaytu reaped the reward of this diplomacy, being notified of the successful negotiations in the first year of his reign, and joined the agreement.[105]

New coinage

Although Uljaytu ignored some traditions, he kept the one regarding coinage. This one concerned the mourning observance that showed deference to the memory of the deceased ruler, which followed the custom for peaceful succession established by his great-grandfather. It may also have followed the express wish of Ghazan.[106] Thus, not until a year after Ghazan's death did Uljaytu issue money in his own name. It continued to follow his brother's reform in many ways; and, in general, maintained many places that had issued the same type and weight. However, Uljaytu completely abandoned any sense of Mongolian identity on his coinage, an action which curiously matched the sentiments of his brother at the beginning of his reign. Uljaytu stayed the course longer, however, embracing vigorously an Islamic view of the world. His was not just Persian acculturation but a truly Islamic position in the sense that the grammar and language on his coinage were Arabic and the religious symbolism was Qur'anic. Although monetary practice remained the same, his concept of the realm differed significantly from the final one of his brother.

The new money was beautifully engraved with artistic geometric cartouches. The obverse field continued to have Ghazan's design of the curved pentafoil and the short *shahada*, but Uljaytu modified the area in the surrounding sections. The bottom one still held *wa sallim* at the end of the *shahada* while, in the four areas above, the date was removed and replaced by the names of the first four caliphs, Abu Bakr, ʿUmar, ʿUthman and ʿAli. On larger coins, Sura xlviii:29 also appeared in an outer margin, only the second time a sura had appeared on the Mongol silver coinage of Tabriz.[107] In the other coinage, Sura iii:25 had been cited.

Even more significant changes occurred on the reverse: the usual square that had been on the obverse of all the coinage from Mongka to Ghazan's reform was resurrected. In its new life, it appeared on the reverse and held a new inscription. The words showed as dramatic a change from its predecessors as had Ghazan's first period coinage. Similarly, this money also abandoned the Mongolian language and proclaimed the new ruler in local titles. The field read *al-Sulṭān al-Āʿẓam/ Ghiyath al-Dunya wa-l-Dīn/Uljaytū Sulṭān/khallada Āllāh mulkahu*/"The great ruler/Perpetuator of earth and heaven (this life and the hereafter)/Auspicious Ruler/ may God preserve his authority". The inscription was Arabic in vocabulary and grammar except for the throne name. Therefore, not only was the legend unusual because of the preponderance of Arabic but it was also unique for containing the first Islamic spiritual title, Ghiyath al-Din, for a Mongol khan of Iran.

A further modification, and a curious one, occurred in the spaces between the reverse square and outer circle. This was the appearance of the minting formula for the first time on the reverse in the coinage of Tabriz. Nevertheless, the placement was simply following the pattern on the other side of earlier money. It took up the top three sections with the bottom containing a mirror image design, in which a vertical pole stood on each side of a circle cut in half by a line, perhaps representing standards around a *ger*, and a wisp of cloud disappearing into the corner at each end. If this interpretation is correct, the design represented the seat of political and financial authority, the centre of the ruler's *urdu* or the council chamber, and was a development from the simple drawing on Isfara'in's obverse of 679 H. At the top, the minting formula began with *al-hamdu li-llāh, rubb al-ʿalamīn*/"Praise be to God, Lord of the Firmaments", then proceeded to the right with *ḍuriba fī sana*/"struck in the year" and concluded on the left with the date (year) *wa sabʿami'a* as illustrated in Plate10.3. In the first issue, "four" was depicted by the Arabic numeral. Later, it was written out as normally done. As a result, the minting formula of Tabriz was Arabic for the very first time, not Persian, which mirrored the Arabic

Obverse Reverse

Plate 10.3 Uljaytu Arabic type (al-Basra) (Date: 70x; weight: 4.26 grams; metal: silver)

Source: By permission of S. Album. Double actual size.

tone found in the field. On the large sizes, a line divided the centre field from a further marginal inscription consisting of another sura, that of xxiiii:54. Uljaytu used this design for five years until the introduction of his second one in 709 H.

Since Uljaytu's enthronement took place within months of Ghazan's death, the khan did have some celebratory coinage struck in early 704 H. Most of it was gold, issued in Tabriz, Baghdad, al-Basra and Kirman while the double silver unit was struck in Kashan and perhaps Naysabur, as discussed below. However, in line with Mongol mourning practice, it does not seem that he taxed the empire for a year, starting his fiscal season only at the end of 704 H. The timing lapped over the hijra calendar so that coins were struck in two consecutive years to cover one tax register. It is best to consult the various charts below of Uljaytu's mints as the following discussion unfolds.

Notably, the financial system had already become severely curtailed in Ghazan's last year. Under Uljaytu, both the number of mints and amount of coin continued to be extremely limited. Very few specimens, often only one from each minting, are available for consultation. The scant evidence, in itself, indicates that the previous regional system no longer operated. Further, after little more than a year under Uljaytu, the system practically collapsed. In essence, for the tax year of 704–5 H, only ten centres minted, one-third of those being in Anatolia. In the next year of 705–6 H, barely four are recorded. By 706–7 H, again, only four minted. Then in the tax period of 707–8 H, three minted. Lastly, in 708–9 H, four are recorded. Thus, after the first year, minting activity dropped drastically by over a half. At no point, moreover, was the realm functioning in a manner that had become normal for the previous twenty years after the first reform of Arghun, Uljaytu's father. In particular, the current lack of activity showed a marked contrast to minting from 699 through 701 H. Although the same wazir, Rashid al-Din, was at the bureaucratic helm for both periods, it is obvious that he either had no control over finances or was not following Ghazan's directives. The latter is difficult to imagine given his rhapsodic report of the reform. On the other hand, perhaps he wrote his observations from hindsight, after having worked through this collapse. A more probable situation, however, since he muddled his facts admirably and seemed to have only a general knowledge, was that he was neither really aware of monetary practices nor actually involved in them. Nevertheless, some competent person did produce a reform in late 709 H. Once again, out of the abyss arose a brilliant conception and a concerted realization of it. Like the reforms of Arghun and Ghazan, Uljaytu's completely covered the empire so that every region had several mints. The reform focused on mass minting across the empire and a change in the design, but there was no weight alteration. In essence, 709 H saw Ghazan's reform completely re-applied with the utmost vigour.

The coinage discussed in this review covers almost a hundred years, yet little remains from much of that time. Rather, most extant Mongol coinage comes from the reigns of Uljaytu after 709 H and that of Abu Sa'id. The reform of 709 H inaugurated an immense increase of money coupled with a decentralization of imperial revenue so that, for the remainder of Mongol rule in Greater Iran, each

region had numerous mints. Tabriz lost its key position as the financial centre, both in determining policy and making imperial dies. According to plan, Ghazan had begun to loosen its grip; and his brother completed the task. Like other major changes in the monetary history of Mongol Iran, the 709 H reform reflected in large measure new political realities.

Administrative structure

Ghazan's policy had already arrogated the officials and workshop to Bazar. However, at cities, the royal *urdu* had struck in the name of that place; usually it had been Baghdad or Tabriz because the cities were on the regular route. This pattern continued during Uljaytu's early years; his royal mint also moved to neighbouring towns near the khan's encampment. However, crucially, his migration pattern differed from Ghazan's, leaving many of the regional divisions to fumble through his first period, according to the evidence of minting activity.

Since the diwan hardly changed policy, the relatively inactive period from 704 to 709 H is quickly disclosed. Nevertheless, it is a frustrating tale since it bears little relationship to the full system preceding it. Only the royal *urdu* mints, now limited to Tabriz and Bazar, maintained an earlier policy. Otherwise, Baghdad became the chief mint and financial centre of the realm. Starting with it, the following review of the structural disintegration of Ghazan's reform leads step-by-step to each region.

'Iraq-i 'Arab and Fars

In the southern area of 'Iraq-i 'Arab and Fars, a new development was occurring. Having gathered regional power during Ghazan's time, it grew to be the major financial force in the early years of Uljaytu. Without supervision from the central diwan, at this point, Baghdad began to wrench control away from Shiraz. Quickly, both Fars and Kirman fell completely silent after issuing celebratory coinage in the first year. Baghdad's power seems to have been based on trade that was forced into only one route that went through it. The diversion may be reflected in the transference about 700 H of the mint of Hurmuz, now quite independent, from the mainland to Jarun,[108] presumably to catch the route shift to the west. This route seems to have been totally secured during 703 H.

This shift becomes immediately more evident from the gold coinage of the area. In 704, Shiraz struck its famous gold for the last time as Baghdad started its new policy. Baghdad continued its normal double silver unit but now added the double gold, putting them both at the mithqal weight. The secondary site of al-Basra was equally busy issuing the same type of coinage. In both cases, it seems that gold was probably struck first followed later in the year by silver, which lapped over to 705 H. After the tax year of 704–5 H, al-Basra stopped minting, however, leaving Baghdad alone in the entire region for the rest of the period. Activity further declined in 705 H as Baghdad rotated gold and silver production

on a yearly basis until 708 H. When it issued gold, it seems that it struck both the single and double unit except that examples from some years have not yet emerged. To detail the rotation, it produced gold for the year 705–6 H, only silver for 706–7 H and gold for 707–8 H. For 708–9 H, Baghdad was scheduled to strike silver again. However, it failed to do so probably because the new reform was taking shape within its bureau.

In summary, Baghdad gained control of both Fars and Kirman/Yazd. Otherwise, Baghdad and, briefly, its entrepot of al-Basra were the only places in the south that had any coinage during Uljaytu's first six years. Even with its resurgent role under Uljaytu, Baghdad became less arrogant than in the heady days of Ghazan; it now produced gold and silver at much reduced weights and at basically only one mint. Clearly, the region had reached a low point in which money indeed represented the drastic financial situation of the entire realm.

The royal mints

Nevertheless, Baghdad produced steadily and had a consistent policy of alternating gold and silver, which in comparison to all other mints made it the financial capital. Unfortunately, the regional diwans elsewhere were unable to follow even this simple and straightforward policy. In contrast, the model was clearly set by the production of the royal mints of Bazar and Tabriz. They worked together and modulated sites and sometimes also the size of the coin, but they did not deviate normally from the main Mongol metal of silver. To start the reign, however, Tabriz issued gold. Although Uljaytu's coronation ceremonies took place in the pasturelands of Ujan, the Bazar mint was not operating. Rather, the agent organized affairs from Tabriz, using an alter-nating schedule of production. With some lacunae noted in Table 10.13, it seems that in 704 H Tabriz started the tax register by striking first the single and later the double silver unit. Uljaytu was often in Tabriz during the first years of his reign, paying many visits to his brother's mausoleum. In 704 H, he went there twice, the last time at the very end of the year.[109] The single silver may have been issued during the first visit and the double during the second one. At that point, an order was probably given whereby the double was to be the standard unit. However, no coins of either denomination have appeared to date for the end of Tabriz's tax season or the beginning of Bazar's later in 705 H. At that date, Uljaytu was in Ujan and did not return to Tabriz at all in 705 H. In spite of the lacunae, certainly the royal master did conclude the tax year at Bazar in early 706 H by striking the double unit. Then, Uljaytu was briefly in Tabriz at the beginning of September or the end of Safar, the second month, of 706 H. The bureaucracy followed through the official visit by issuing the double later in 706 H probably to pay for Uljaytu's failed campaign in Jilan. Tabriz did not mint in 707 H even though Uljaytu arrived there while he was travelling through the area, staying over Rabiʿ II, that is, most of October. Back at Bazar, in the latter part of 707 and early 708 H, the diwan struck the single twice. At this point in 708 H, Bazar produced a unique gold issue, which was unusual not only because of the

Table 10.13 Main administrative areas, 703–9 H

Date	*Royal Mints*		*ʿIraq-i ʿArab*		*Fars*	
	Tabriz	*Bazar*	*Baghdad*	*Basra*	*Shiraz*	*Kirman*
704	Au[1] s[2]		Au(2)[4]	Au[6]	Au(4)[8]	Au(2)[9]
	D[3]		D[5]	D[7]		
705	*		D[10]	D[12]		
		*	Au[11]			
706		D[14]	Au[15]			
			Au(2)[16]			
	D[13]		D[17]			
707			D[19]			
		s[18]	*			
708		s[21]	Au[23]			
	D[20]	Au(4)[22]				
709	D[24]					

Notes
Au – single gold; s – single silver; D – double silver; * – probable minting.
1 Sotheby Auction Catalogue, May 1986, lot 620; no weight.
2 Steve Album, private collection; 2.19 grams.
3 Yapi ve Kredi Bankasi 11011; 4.20 grams.
4 Yapi ve Kredi Bankasi 10272; 4.25 grams.
5 Yapi ve Kredi Bankasi 10799; 4.25 grams.
6 Sotheby Auction Catalogue, April 1981, lot 432; no weight but probably between 4.21 and 4.50 grams.
7 Yapi ve Kredi Bankasi 10811; 4.23 grams.
8 Sotheby Auction Catalogue, May 1986, lot 610 b; 8.59 grams.
9 Sotheby Auction Catalogue, October 1986, lot 342; 4.25 grams. This is the only coin known, and only *Kir* is visible.
10 Yapi ve Kredi Bankasi 10800; 4.23 grams.
11 Yapi ve Kredi Bankasi 10773; 2.30 grams.
12 British Museum 1973.11.12.1; 4.30 grams.
13 Steve Album, private collection; 4.13 grams.
14 Steve Album, private collection; 4.23 grams.
15 Yapi ve Kredi Bankasi 10774; 2.50 grams.
16 Sotheby Auction Catalogue, October 1986, lot 909 a; 4.32 grams.
17 Steve Album, private collection; 4.31 grams.
18 American Numismatic Society 30.168.109; 1.86 grams.
19 Steve Album, private collection; 4.28 grams.
20 American Numismatic Society 22.211.164; 4.34 grams.
21 American Numismatic Society 30.168.110; 1.84 grams.
22 Sotheby Auction Catalogue, October 1986, lot 909 b; 8.63 grams.
23 Welch, No. 446; 2.13 grams.
24 Yapi ve Kredi Bankasi 11013; 4.38 grams.

metal but also because it was four times the standard unit. It may have been a celebratory issue for his thirtieth birthday.[110] Soon afterwards, the *urdu* moved back to Tabriz. There, the normal minting consortium continued as Tabriz struck the double silver unit for both parts of the tax year of 708–9 H. Uljaytu was in Tabriz in the middle of October or Rabiʿ II, the fourth month, of 708 H but not ever in 709 H, the year the khan started his southern tour of the ʿIraqs. Apparently, the mint master had been left behind in charge of the khan's immediate treasury.

Indeed, Tabriz was the last of the royal mints to strike as the new reform took hold in the latter half of the year.

Although the two mints of Tabriz and Bazar alternated every other year, Tabriz's minting often coincided with Uljaytu's visits, strongly suggesting that his trips there were, in part, motivated by administrative requirements. However, financial policy manifested itself as well without his immediate presence. During these early years, Uljaytu spent much of his time in Ujan, northeast of Tabriz, and near Maragha, his favourite hunting grounds. His limited itinerary allowed the mint accompanying his *urdu* to be close to Tabriz, so the consortium had been easily maintained. Nevertheless, it seems probable that the accounting records, registrars for supplies, dies and bullion continued to be kept in Tabriz.

Greater Arran, Armenia and Gurjistan

Occasionally, the *urdu* did move outside this general circuit. At the beginning of 705 H or about mid-September of 1305 AD, Uljaytu passed through Nakhchavan. A full year later, he came again in late Safar, the second month or August, after leaving Tabriz on his way to Ala Tagh,[111] north of Arjish, probably for hunting at the beginning of the stork migration season. He returned through the venerable city near the middle of November or Jumada I, the fifth month, of 706 H.[112] By this time, it seems, tax was finally levied on the town. These visits were the only ones he made during the first part of his reign, and 706 H was the only time the city minted in that period. It struck a double silver unit just once, as though the late issue would suffice for a normal tax season at the single. The double, however, was Nakhchavan's prerogative as the nominal administrative capital of Arran. This unique issue was all that remained of its former prestige.

The city minted because Uljaytu passed through it on his way from Anatolia across the Mughan Steppe to his winter quarters near the shore of the Caspian Sea. However, a regional policy did still operate. Following the lead of nearby Anatolia, discussed shortly, Arran factored in a tax break of one year. Therefore, Arran paid dues once more in 708–9 H. For that season, it had a joint minting of single silver coins from Bardha', probably in late 708 H, and from the new site of Qir Shahr in early 709 H. The latter was clearly linked to Nakhchavan because it used one of its reverse dies. However, Uljaytu was not close to the area in 709 H but in either Ujan or Gavbari on the Caspian, his summer and winter camps respectively, until he left in mid-year for Baghdad. Greater Arran had once included Jilan, from which Amul minted for the tax year from 704 into 705 H[113] at the single unit. In the next year, however, there was a rebellion. Uljaytu went on campaign to put it down, but his failure to do so meant that the diwan did not extract any more money from that region. the activity is charted in Table 10.14.

In the adjacent areas of Gurjistan and Irminiya, similar intermittent financial activity took place. In Irminiya, Arjish was the capital, issuing the double silver in late 704 H; and Akhlat also minted but with the single in 704 H. Both then ceased production although the *urdu* was near by later, especially in 706 H. In Gurjistan,

Table 10.14 Northwestern areas, 704–9 H

Date	*Greater Arran*			*Irminiya*		*Gurjistan*
	Nakhchavan	*Bardha'*	*Qir*	*Khilat*	*Arjish*	*Tiflis*
704				s[1]	D[2]	
705						s[3]
706	D[4]					
707						
708		s[5]				
709			s[6]			

Notes

s – single silver; D – double silver

1 Yapi ve Kredi Bankasi 10872; 1.85 grams. All specimens have a confused date that is most probably read as 704 H.
2 Hermitage: 3.86 grams as in the Markov catalogue, 190 ce. Also Yapi ve Kredi Bankasi 10839; 4.00 grams. The date is worn but probably 704 H.
3 Münzsammlung (Munich) 94412; 2.14 grams. The date is uncertain.
4 Steve Album, private collection; 4.25 grams.
5 Münzsammlung (Munich) 85009; 2.16 grams. The date is uncertain.
6 Yapi ve Kredi Bankasi 10915; 2.00 grams, with hole.

Uljaytu had moderate success in bringing the region back under his direct supervision. Tiflis issued the imperial die on the single unit in 705 H; but, after that, it somehow evaded any more tax until the reform of 709 H. In conclusion, if some slight financial administration had resulted from Uljaytu's transient interest in the northwestern tier, the office had only the barest of functions and concentrated later on Anatolian centres.

Central and eastern regions

The story was much the same in other regions. In the Jazira, only a faint glimpse of a possible administration appeared. The powerful cities of Mardin and al-Mawsil had been silent since 703 H; but the town of Si'ird, nestled in the foothills northeast of Jazira ibn 'Umar, struck the single silver unit twice for the tax year of 704–5 H.[114] It alternated with Jazira ibn 'Umar, which then struck late in 705 H[115] and probably early in 706 H although no coin has yet been found with the latter date. As with a number of other mints in the empire, almost all of the Jaziran ones fell silent after that tax year. Only in 708 H was there any activity as, out of the blue, Irbil struck one issue of double silver.[116] As a result, no indication exists of a normal financial structure in the region. Rather, it seems that taxes were demanded randomly or the region used the plentiful coinage of Ghazan.

The same picture emerges from 'Iraq-i 'Ajam. There, too, at first the government instructed Kashan to continue Ghazan's reform. The city had the double for 704, 705 and 706 H.[117] On the other hand, Isfahan struck only in 705 H.[118] Then all minting ceased in 'Iraq-i 'Ajam. Uljaytu was not in the cities of the province at all

but did have a brief hunting trip northeast of Hamadhan in the middle of Rabi' I of 707 H. Unfortunately, by then there was no monetary activity in the area. Obviously, the region had no close supervision from any diwan.

In Khurasan, the cities of Isfara'in[119] and Naysabur[120] minted the double in late 704 H, trying to maintain the system; but they too ceased production after that date. In the next year, Sabzavar minted the double silver in each half of the tax year of 705–6 H.[121] At some point, Turshiz[122] minted the double. Much later, at the end of 708 H, Damaghan finally had one issue, the double silver.[123] Otherwise, the province was blank. As with many other mint areas, Uljaytu did not reach Khurasan during this period of his reign, nor does there seem to have been any provincial capital to regulate a regional policy.

Anatolia

The exception to this vague and haphazard administration occurred in Anatolia; yet it, too, never had a visit from the khan. In 704 H, the Saljuqs were finally removed from power; and Mongol officials extended their grip. Morever, the area seems to have benefited from the new pact with the Jochids. Arzanjan,[124] the regional capital, produced the double silver unit steadily in alternate years; that is, in 704 and 706, then 707 and 709 H. Arzan al-Rum, the other centre under Ghazan, minted the double in both 704–5 H[125] and then ceased to function. On the other hand, various sub-areas flourished under the supervision of Arzanjan and produced coinage for the remainder of Uljaytu's first period as indicated in Table 10.15. They are difficult to define geographically; and most issues are poorly struck on cold flans, generally locally and awkwardly engraved. They were often underweight but always the single silver unit. A detailed study would probably produce more firm conclusions; however, a reasonable conjecture is that one consortium operated to the north of Arzanjan and south of Trebizond, consisting of Gumush Bazar, Falakabad and Lu'lu'a. The towns alternated for each hijra year, Gumush Bazar striking first, then Flakabad and finally Lu'lu'a. Thus, Gumush Bazar struck at the end of 704 H and Flakabad in the first half of 705 H for that tax year. Lu'lu'a then minted in the second part of 705 and the first half of 706 H. The route was repeated in the second half of 706 H; first Gumush Bazar struck, then Falakabad, then presumably Lu'lu'a. However, a second minting from Lu'lu'a for 708 H has not appeared yet. After that, the cycle continued with Lu'lu'a minting in the last half of 709 H. The pattern allowed both Gumush Bazar and Flakabad three periods of inactivity and Lu'lu'a two, in other words a whole year or more between mintings.

Further east, another sub-region existed on the coast of the Black Sea, namely Samsun and Qara Hisar, also known as Tuqat. Samsun minted two issues for the tax year of 704–5 H, Qara Hisar one for 705 and probably another for 706 H although no coin has yet appeared. Minting returned to Samsun for two issues from the second half of 706 H to the first part of 707 H. It then switched to Qara Hisr, which again has no coin known for the second part of the tax season. The

Table 10.15 Anatolia, 704–9 H

Date	*Gumush Bazar*	*Falak-Abad*	*Lu'lu'a*	*Sam-sun*	*Qara Hisar*	*Qunya*	*Qara Su*	*Ama-siya*	*Laran 'Alaya*	*Sinub*	*Burghlu*
704	s[1]			s[2]			s[3]				
705		s[4]		s[5]				s[6]			
			s[7]		s[8]	s[9]					
706			s[10]		*	*					
	s[11]			s[12]				*		s[13]	
707		s[14]		s[15]				s[16]			s[20]
			s[17]		s[18]				s[19]		
708			*		*				s[23]		
	s[21]			s[22]		*					
709		s[24]		s[25]		s[27]					
			s[26]		*						

Notes

s – single silver; * – probable minting.

1 Steve Album, private collection; 2.17 grams.
2 American Numismatic Society 30.168.89; 2.21 grams.
3 American Numismatic Society 44.100.27482 Hoard; 2.13 grams. The date is worn and unknown.
4 J. C. Hinrichs, private collection; 1.88 grams.
5 Steve Album, private collection; 2.24 grams.
6 Münzsammlung (Munich) 84840; 2.06 grams.
7 Steve Album, private collection; 1.96 grams.
8 Steve Album, private collection; 1.89 grams.
9 American Numismatic Society 00.999.11311; 2.21 grams.
10 Yapi ve Kredi Bankasi 10871; 2.08 grams. The date is uncertain.
11 American Numismatic Society 30.168.105; 2.27 grams.
12 Münzsammlung (Munich) 85106; 2.21 grams.
13 American Numismatic Society 30.168.101; 2.08 grams. The date is uncertain.
14 J. C. Hinrichs, private collection; 1.65 grams.
15 American Numismatic Society 30.168.106; 2.21 grams.
16 American Numismatic Society 30.168.92; 2.14 grams.
17 Steve Album, private collection; 1.73 grams.
18 Yapi ve Kredi Bankasi 10789; 1.97 grams.
19 American Numismatic Society 44.100.27469 Hoard; 2.00 grams, (Larenda).
20 Steve Album, private collection; 1.38 grams.
21 Yapi ve Kredi Bankasi 10622; 2.27 grams.
22 Steve Album, private collection; 2.03 grams.
23 Steve Album, private collection; 2.27 grams. The date is blundered.
24 J. C. Hinrichs, private collection; 1.60 grams.
25 Steve Album, private collection; 1.60 grams.
26 Steve Album, private collection; 2.07 grams.
27 Steve Album, private collection; 2.05 grams.

diwan then went back once more to Samsun for two emissions for the tax period of 708–9 H. In essence, the two cities were taxed every other year. By having alternative sites, the region showed that it was part of the general Anatolian administration.

Continuing northeast and still on the littoral of the Black Sea, Sinub and Burghlu also alternated production. However, the activity there was slight, indeed. The entrepots collected tax for only one year, Sinub in the second part of 706 H and Burghlu in the first part of 707 H.

The inland part of central Anatolia had another group. Qunya, Qara Su, Amasiya and Larande or ʿAlaya, the last name is severely blundered sometimes, again alternated minting. The situation is rather conjectural since there are a number of lacunae and insecure dates. Given those *caveats*, however, Qara Su began by striking in 704 H. The agent then moved to Amasiya for early 705 H and next to Qunya for late 705 and early 706 H although no coin is known for 706 H. At this point, Amasiya may have taken Qara Su's place and struck over 706–7 H; and Larande completed the programme with two issues for 707–8 H. The diwan returned to Qunya for the year 708–9 H, but coins from only 709 H are extant so far. In spite of the haphazard appearance of the minting schedule, it was a positive development and expansion of the number of mints in the area from the Ghazan period. Nevertheless, subsequent political events in this particular area soon gave the first glimmerings of local dynasties, in particular the Ottomans, that eventually moved on to centre stage.

These four groupings from Anatolia, as presented in Table 10.15, produced most of the coinage in Uljaytu's first six years. Although their status developed from Ghazan's reform, the later impetus for minting seemed to arise from two principles, proximity to mines and trade. For example, the names of Gumush Bazar and Ma'dan denote extraction activity. Regarding trade, other towns were on the routes across northern Anatolian that facilitated Black Sea commerce, either shipping or overland around its eastern end. The strong showing of these sites at this time and the fact that Mardin and al-Mawsil were not represented in the tax registers at all suggest that the commercial route had changed from a southern one through the Jazira to one across Anatolia. Thus, the numismatic evidence indicates that the Iranian Mongols had substantial trading with the northern khanate. These contacts could have extended to the Turks ruling Egypt and included the lucrative slave trade of Circassians to Egypt. This route would have reduced the insecurity of sea lanes that the Byzantines and Venetians faced, providing a better profit for Uljaytu's traders.

Technical aspects

Over Uljaytu's first period, monetary production declined not only in the total number of mints but also in those that struck the higher denominations. For example, of the seven mints which had issued quadruple gold under Ghazan, only two did the same in this period, namely Shiraz and Bazar. Not only the denomination but also the weight standard developed problems. The double silver and gold units were most common outside Anatolia but, unfortunately, represented every mithqal that had ever existed in the realm, those of 4.48, 4.30, 4.24 and 4.125 grams. This plethora of standards can be confirmed by a distribution chart of his coinage. Nevertheless, the Tabriz mithqal of 4.24 grams produced the largest number in both the double and single unit groups, that is the 24 and 12-carat coins. Although the Tabriz standard still prevailed, it was no longer as strong as it had been under Arghun and Ghazan. Further, it seems that, under Uljaytu, the double unit or full mithqal became the normal coin in Greater Iran.

Review of Uljaytu's first period

In conclusion, the first period of Uljaytu's coinage was remarkable for four aspects: the Arabization of the inscription, the hegemony of Baghdad in full policy implementation, the leading role of Anatolia in producing most of the revenue and the continued tight liaison of the financial diwan in Tabriz with the royal camp. In short, the steady reduction of mint sites and denominations from the end of Ghazan's reign continued apace under Uljaytu. Indeed, his gold became so rare that it effectively turned into commemorative pieces. It was struck almost solely in the first year of 704 H and then only in Baghdad, al-Basra, Shiraz, Kirman and Tabriz. No *quriltai* produced a coherent financial policy, so the treasury became effectively de-activated. As a result, regional diwans lost all direction and local power to tax and produce money. The lack of purpose and clear authority were probably major causes of the shake-up in 709 H. At that point, in contrast to the first period, the financial diwan was given the remit to launch a massive new policy that began another innovative era in Mongol money.

Reform of 709 H

In 709 H, Uljaytu launched his own reform, after which coinage became exceedingly prolific. It went through several major design changes and weight reductions, a trend his son, Abu Saʿid, continued at an even faster pace until the end of the dynasty. There was probably a link between the location and timing of Uljaytu's first reform. Like Ghazan's, the reform started in Baghdad, which Uljaytu visited for the first time at the end of 709 H. His objectives included visiting the many Shiʿa shrines in the area apparently because he had decided to finally adopt this branch of the Islamic faith. His conviction signalled the most visually notable and immediate sign of the reform, namely the incorporation on imperial coinage of the Shiʿa profession of faith as the *shahada* added *ʿAlī walī Āllāh*.

However, his acceptance of Shiʿism is only incidentally linked with the reform since the practical aspects of the new policy were driven by more tangible factors. Principally, the location of the reform's inauguration reflected the political and economic position of the city. In both Ghazan's reform but particularly in Uljaytu's first period, Baghdad had gained such stature that it was the only place that minted every single year. The reason it was so unique is unclear, but many indications point to its control of the most lucrative foreign trade of the empire.[126] The resilient entrepots of the Jazira, running goods and people along the northern edge of the Syrian Desert to the Mediterranean coast, were now completely silent. The decline had begun after Ghazan's campaigns into Syria, suggesting an economic complication from the failed military actions. Thus, foreign trade in that direction may have withered. Alternatively, manufacturing production and internal movement of goods was apparently barely taxed. Perhaps Uljaytu, once more like Ogedai, did not tax his own traders. Instead, it seems that customs dues were taken only on foreign merchants entering the main markets, including the khan's *urdu*.

The only other region that equalled Baghdad's activity was Anatolia, and the two were probably linked. Together, those mints reaped almost all of the tax revenue in the khan's first period. However, the whole region of Anatolia could not wield the same clout as the single city of Baghdad. The place was not just in a fortunate position but exercised a stranglehold on imperial finances. Since it is difficult to conceive that the rest of the empire was in a serious economic quagmire, the numismatic evidence illustrates clearly that the financial basis of the imperial government at this time was foreign trade. Therefore, international commerce seems to be the key to developments in 709 H, not Uljaytu's religious conviction. Rather, the exterior of the coinage confirmed only Uljaytu's already attested Islamic view of his realm. The real change occurred in financial administration and coinage production, points of great concern to Baghdad.

Weight reductions

An analysis of fiscal and monetary administration after Uljaytu's reform is left to others, but it is important to note that coinage continued to meet strict standards until the end of Mongol rule in Greater Iran. Although in 709 H the policy was drastically revised with many mints issuing and the outward design of the coinage adjusted, the weight continued to stay the same until 713 H. Then, it was reduced from 2.12 grams or 12 carats to 1.94 grams or 11 carats of the 4.24-gram mithqal.[127] Further weight reductions occurred in 719 H, two years after the enthronement of Uljaytu's son, Abu Sa'id (717–36 H). Then the diwan reduced the standard to 10 carats or 1.76 grams. Ten years later, in 729 H, Abu Sa'id lowered the weight to 9 carats or 1.59 grams and, finally in 734 H, to 8 carats or 1.41 grams.

The weight changes were further complicated by the continued use of old coins which were shaved to meet the lower weight of the newest issue. This practice complemented the variety of mithqal standards already reported for the double coin. Both factors are evidence that, after 709 H, the central administration had enormous control problems over the implementation of such a comprehensive monetary policy. The later weight reductions especially affected Uljaytu's first period coinage; but other former types, even from Hulagu's period, were also shaved to allow them to circulate at the various new weights.[128] After 709 H, the most revealing fact, however, about the reductions is that no matter what the mithqal was, coins were always lowered by two carats. For example, double coins minted at the two higher mithqals of 4.48 and 4.30 grams were shaved and reduced by two carats to 22 carats. Single coins on the 4.48-gram mithqal were also reduced by two carats to 10 carats. Only the single coins on the 4.30-gram mithqal were not clipped. That mithqal, which had mysteriously and sporadically appeared in peripheral areas during some of the reforms, still retained its grip.

However, since no coin on the Tabriz mithqal was shaved in the later reductions, money circulating in the central provinces was apparently re-minted. On the other hand, Anatolia, which used most of the money based on the 4.30-gram mithqal, and Gurjistan, advocates of the same mithqal, seem to have had less minting activity,

in some places perhaps none, since the regions had to shave many old coins for use. The other provinces also had to adjust to reductions by shaving much previous coinage to meet the lower carat levels. This action affected particularly all types at 12 carats. This need, as mentioned, arose particularly after Uljaytu's structural reform in 713 H, the one that finally had a new weight. After fifteen years of weight stability, the coinages of Ghazan and Uljaytu were in heavy circulation, so much so that the reform apparently did not provide enough money to meet the realm's needs, requiring ordinary people to shave former coins. However, the administration learned the way to respond for the next reduction since paring rarely occurred after the following reforms that occurred in 719, 729 and 734 H.

These later reductions have caught the attention of some Mongol historians who use them as signs of decline. That a smaller coin should be bad is difficult to understand except for the scholar's suspicion that, every time the government re-minted, it kept excess silver for itself and made people use new coin at the value of the old one. Since the Mongols never had a re-coinage, they never practised this European subterfuge. Moreover, the history of weight reductions after the establishment of a universal mithqal for the whole empire, that is from 684 H to the dissolution of Mongol rule in Greater Iran shows that Arghun and Ghazan had lowered the former coin systematically by two carats. Even so, Arghun, Ghazan and Uljaytu acted conservatively, each making only one reduction during the course of their respective reigns, Arghun in 683 H, Ghazan in 698 H and Uljaytu in 713 H. By the last date, the standard coin was the double; so, in a practical sense, he too reduced his weight by two carats. When Uljaytu's son dutifully made his weight reduction in 719 H for the actual standard coin in circulation, it was again by two carats. His next reduction of another two carats ten years later, which put the unit technically at 9 carats, was probably triggered by an extra factor: it matched the traditional Chaghadaid and Jochid coinages. Thus, it is possible that, following his grandfather's lead in 687 H, Abu Sa'id attempted once again to enact a monetary unification of the Mongol realm. Unfortunately, the five-year reform of 729–34 H failed; once again, it seemed that trade rivalries of the various *ulus*es were too strong or the political will for maximizing contacts too weak for pan-Mongol cooperation to succeed. With the same rationale apparently as in 687 H, the diwan decided to re-focus on only the Iranian realm. To do so, it reduced the weight once more. The last change occurred in 734 H, two years before Abu Sa'id's death at the age of thirty-one. The coin technically weighed 8 carats or 1.41 grams.[129] However, as noted, by that time, most coins were struck at the double unit following the Khurasani pattern from Ghazan's reform. In essence, the common coin was the same weight that Kirgiz had struck in 638 H for the first Mongol currency in Adharbayjan. Thus, the history of Mongol money in Greater Iran had come full circle. This result occurred because all the manoeuvres and calculations over the entire period were founded on essentially the same premises. It was only their application that ultimately created this story.

Notes

1 Muḥammad ibn ʿAlī b. al-Fakhrī, aka. Ibn al-Tiqṭāqā, *On the systems of government and the Moslem dynasties*, trans. C. E. J. Whiting (London, 1947; Westport, CT, reprint 1981), 324.
2 *Ibid.*, 28–9.
3 I.e. before their conversion to Islam.
4 My translation *infra*. In political terms as a status marker, gold was extremely important since it was the colour of royalty on the steppe. See Allsen, *Commodities*, Chapter 4, "Clothing and color", especially p. 61, quoting Rashid al-Din again, who says Ghazan's Muslim supporters swore on the Qur'an and his Mongol ones on gold. Also in the summer of 701H at Ujan, Ghazan ruled from a massive golden tent, which had taken three years to construct and a whole month to erect; Boyle, "Il-Khans", 391.
5 Bar Hebraeus, 494, as quoted by Boyle, "Il-Khans", 374.
6 Al-Fakhri, 67.
7 Spuler, 156–7.
8 As noted in Chapter 5, Mongka had ordered the same policy for drafts.
9 *Ibid.*, 157–60.
10 Juvaini, 202, describes Ogedai as having an extremely liberal nature; yet the empire was running smoothly. It should be noted that Juvayni exaggerated, here as elsewhere in his stories, because such actions could have only occurred during caravan season. The period was limited to the brief summer months, and goods could be distributed only to those allowed to be near the khan's personal camp. Rather, Juvayni was providing a panegyric strongly modelled on Iranian concepts of state organization.
11 Spuler, 161–2.
12 Al-Fakhri, 16.
13 Some manuscripts add Lur.
14 I.e. three weight units or *dāng*s of 4 carats each to one coin; *mithqāl* in this context meant literally 'weight' and *dīnār* was synonymous with 'coin'.
15 The Munich manuscript has a variant on the title as "The Copy of the Decree about the Weights of Gold, Goods, the Measuring Rod, Liquid, (*Qafīz*) and Capacity Measures, (which is ordered to be in a manner that is best of all)".
16 I.e. the letter of the law is carried out.
17 I.e. keep on the same basis.
18 I.e. the equality of these measures.
19 The word is *paymāma*, which is used here as a general term.
20 I.e. to the agents of the district.
21 The Persian original from which these sections have been translated is that of Fadl Alah Rashīd al-Dīn, *Jāmiʿ al-Tawārīkh*, ed. Karl Jahn, E. J. W. Gibb Memorial Series, new series XIV (London, 1940).
22 One possible exception is an iron weight of 8.32 grams. Allowing for some corrosion, the object was twice the Tabriz mithqal or four times the reform unit weight. Four other heavier iron weights are twenty times the 2.12-gram coin or ten times the 4.24-gram mithqal. However, the weights are not octagonal and have no stamp. These are objects from the Ghubayra expedition of the School of Oriental and African Studies, the University of London. The site of the excavation was seventy kilometres south of Kirman City. The closing date was 1393 AD. A. David H. Bivar, *Excavations at Ghubyrya, Iran: 1971–76* (London, 2000).
23 Boyle, "Il-Khans", 382.
24 Howorth, 393–4.
25 C. A. Storey, *Persian Literature: A Bio-Bibliographical Survey*, Vol. 1 (London, 1970), 72.

26 Welch, No. 475; 1.05 grams.
27 The format was dropped in 684 H.
28 Many Latin translations of these phrases equated God with *Tegrin* or *Tingai*/"Heaven". Note Igor de Rachewiltz, *Papal Envoys to the Great Khans* (London, 1974), and Francis Woodman Cleaves, "The Mongolian Documents in the Musée de Teheran", *Harvard Journal of Asiatic Studies* 16 (1953), 1–108; Document I, 7. Only Cleaves also provides the Mongolian.
29 Gerhard Doerfer, *Turkische und Mongolische Elemente im Neupersischen* (Wiesbaden, 1963).
30 Cleaves, "Mongolian Documents", Document I, 7.
31 In the Baghdad series of 668H, the margin of the gold still retained the statement but lacked *qadīm*/"eternal" in *bi-quwwa Allāh*/"by the power of God". In comparison, Ghazan's reform edict also had the same phrase in the second line. The concept was not entirely new to Baghdad. A donative piece of the caliph, al-Mu'tamid, from the mint of *Madīnat al-Salām* or Baghdad, dated 276 H, had *al-quwwa li-llāhi jamiʿyan*/ "the power of the universal God" in the outer margin of both the obverse and reverse sides; *Coins of the Islamic World*, Spink Auction Catalogue No. 34, 16 June 1990, No. 79, p. 18. The concept of eternity had also appeared in the middle circle of the standard Fatimid reverse in the phrase *li-tawḥīd al-Āllāh al-samd*/"to the profession of the unity of the eternal God"; Lane-Poole, Vol. 4 (1879), 36, #143, the mint of Miṣr/Cairo, dated 440 H.
32 The middle character is open to interpretation. This analysis is based on correspondence and translation by Paul Buell in the spring of 1991.
33 Then only the characters *cheng* and *chin* appeared. Similar to this coinage, the later *Yüan* cash also had the denomination on the back; Herbert Staak, *Die Loch Münzen chinas* (Berlin, 1988), 303–4.
34 Chinese coins disappeared by 1350 AD as the Mongol state in Iran was dissolving and about twenty years before the downfall of the Mongols in China.
35 Lane-Poole, Vol. 6 (1881), introduction.
36 Morris Rossabi, "The Reign of Khubilai Khan", *The Cambridge History of China*, Vol. 6, *Alien Regimes and Border States, 90–1368* (Cambridge, 1994), 414–89; 466–7. See also Nicholas Poppe, trans. and John R. Krueger, ed., *The Mongolian monuements in 'Phags-pa script* (Wiesbaden, 1957). Miyoko Nakano, *A phonological study in the 'Phags-pa lama script and the Meng-ku tzu yün* (Canberra, 1971).
37 Correspondence with Nicholas Rhodes, April 2004.
38 This practicality would explain the reason for the later breach of protocol on the copper of Mardin and Lur. The local ruler's name on the coinage perhaps implied that he was responsible for the exchange rate of copper to the imperial system.
39 Consult Tables 1.2 and 1.3 in Chapter One, *infra*.
40 Remler, 168–9.
41 The first design is slightly different from the main reform coinage. In particular, the mint on the obverse is written vertically on the right and left edges.
42 That is, from the seventh to the twelfth months.
43 Al-Fakhri, 29.
44 ʿAbd al-Razzaq ibn Ahmad, aka ibn al-Fuwati, *Al-Hawdīth al-Jamiʿa wa'l-Tajarib Al-nati'a fī-l-Mi'ati' al-Saba'a* (Baghdad, 1932).
45 Unfortunately, no documentation exists on his methods of governing there.
46 The structure was similar to the copper consortium of 695 H. In that situation, the two permanent residences were Tabriz and Arzanjan with Inja being the travelling mint.
47 The Saljuqs continued to be nominal rulers until 704 H.
48 Reuven Amitai, "Whither the Ilkhanid Army? Ghazan's First Campaign into Syria (1299–1230)" (*sic*), *Warfare in Inner Asian History (500–1800)*, ed. Nicola di Cosmo (Leiden, 2002), 221–64.

49 Howorth, 461.
50 Boyle, "Il-Khans", 392.
51 Ghazan's itinerary during this second part of his reign is from Howorth, 385–97.
52 Only one coin is known each from Bazar and Tabriz.
53 Maragha was a centre especially for astronomy. Nasir al-Din Tusi had established an observatory there with its complement of scientists, mathematicians and instrument makers.
54 Bibliothèque Nationale M 1108; 8.70 grams.
55 Although the date is too poorly struck to read on this one known coin, the issue was presumably made in this year for this occasion.
56 Boyle, "Il-Khans", 396.
57 Mongols face south, not north, to indicate direction.
58 Stephen Album, "Studies in Il-Khanid History and Numismatics I: A Late Il-Khanid Hoard (743/1342)", *Studia Iranica* 13 (1984), 49–116; 52.
59 This study has tried to include all possible mints, yet undoubtedly it has missed some. These figures will be expanded as more research is conducted on Ghazan's copious coinage.
60 There had been the twelve regional ones, the three in Greater Arran and the two other royal ones of Bazar and Tabriz.
61 It, like Bardhaʿ, initially minted the new design at a former weight, as already mentioned, but quickly dropped to the correct one.
62 Steve Album, private collection; 2.19 grams. The name means "Lord City".
63 Bora Etkar, private collection; no weight. The site's location is unknown.
64 Steve Album, private collection; 2.09 grams. As noted by the collector, this is the "first report of this site as a mint". The place is modern Bundur.
65 J. C. Hinrichs, private collection; 2.16 grams.
66 Ashmolean Museum 141; 2.23 grams.
67 Steve Album, private collection; 2.25 grams. The city also minted in 700, 701 and for 702 H in Rajab, Dhu al-Qaʿda and Dhu al-Hijja, and finally in 703 H.
68 Steve Album, private collection; 2.49 grams. The place also minted in 701 H. The mint may be Kankar, the modern Cankiri, northeast of Amasiya.
69 Steve Album, private collection; 2.18 grams. It is probably northeast of Amasiya or modern Denizli.
70 Steve Album, private collection; 2.15 grams. The city also minted in 700, 701, 702, 703 and 704 H. The place is a mining town near Nigda.
71 Steve Album, private collection; 2.13 grams. The word means "mine".
72 Bora Etkar, private collection; no weight. The word means "market at the treasury".
73 Steve Album, private collection; 2.27 grams.
74 Steve Album, private collection; 2.09 grams.
75 American Numismatic Society 27.179.151; 2.03 grams. The city also struck in 701, 702 as well as non-reform copper in 703 H.
76 Steve Album, private collection; 2.13 grams. It also minted in 700 H.
77 Yapi ve Kredi Bankasi 10615; 2.20 grams. It also struck in 701 H.
78 Steve Album, private collection; 2.23 grams. The town is probably on the same plain as Kik.
79 Smithsonian Institution NU 61105; 2.14 grams. The city also minted in 700, 701, 702, 703 and 704 H.
80 Yapi ve Kredi Bankasi 10687; 2.12 grams. It also struck in 700 H.
81 American Numismatic Society 17.216.1591; 2.19 grams. It struck sometimes with Samsun dies and also issued in 701 H. Probably in "celebration" of full annexation, it struck gold in 699 H; Yapi ve Kredi Bankasi 10458; 8.60 grams.
82 Steve Album, private collection; 2.19 grams. The date is uncertain.
83 Bora Etkar, private collection; no weight.

84 Steve Album, private collection; 2.18 grams.
85 Ashmolean Museum 152; 12.92 grams. It also struck in 700 H.
86 American Numismatic Society 49.163.360; 2.29 grams.
87 Steve Album, private collection; 2.24 grams. A discussion of the Christian types of both David VIII and Wakhtang III with Ghazan is found in Lang, 49–51.
88 Howarth, 423–5. The province of Samtskhe had been independent of Kartli control since David Ulugh (d. 669 H); Lang, 49.
89 This did not mean that the Georgians failed to honour most other standard requirements. For example, an important contingent of Georgian forces was necessary for the third invasion of Syria in early 702 H.
90 Lang, 49, 53.
91 In Mongol eyes, a person is one year old from the day of birth.
92 Boyle, "Il-Khans", 347.
93 Zambauer, 257.
94 This is probably the same as the *tughār*. The land tax had originally meant tax-in-kind or a produce tax, which the regime was intent on monetizing.
95 Howorth, 482.
96 Abu Ishaq was a large and powerful pilgrimage centre; see Blair, "Mint Organization", 226.
97 Howarth does not indicate if the land and sea taxes were customs duties or portions of the produce, the *tughār* originally granted to the army. Most likely, the tax was the former, but certainly it was calculated in coin; 407–8.
98 *Ibid.*, 451, after Wassaf.
99 *Ibid.*, 419.
100 Boyle, "Il-Khans", 392.
101 *Ibid.*, 398.
102 In modern Mongolian, *Ulziit*.
103 Many historians consider Uljaytu's reign to be the height and glory of Mongol rule in Iran. Peace and stability allowed unprecedented economic and cultural development. Nevertheless, it has also been noted that Uljaytu was perhaps more lucky than deserving of this situation, seemingly not to have taken much direct interest in government but to have left much to his military commanders to assure control and to his Persian administrators to deliver civilian requirements. For this view, see Charles Melville, "The Itineraries of Sultan Öljeitu, 1304–316", *Iran* 28 (1990), 55–70. Nevertheless, if he was not personally active, he differed from his predecessors' method of governing, in which both military and civilian personnel were drawn from indigenous ethnic and religious groups as well as a variety of Central Asian ones. The following examination suggests that Uljaytu's administrative apparatus did not change from earlier models, which means that although he spent a great deal of time hunting, thanks to sources for his life which are missing for most of his forbearers, he fulfilled the standard roles of a ruler. Perhaps his best asset, like Ogedai's, was to continue and develop the patterns established by his innovative predecessor. His reign was a calm one with steady policies and skilful balancing of power blocs within the empire.
104 Boyle, "Il-Khans", 398.
105 A contemporary source states that Ghazan on his deathbed implored his brother not to change anything he had set in motion for three years at least. After that, he could do as he pleased; Howorth, 485. In fact, Kharbanda did not touch the coinage system for six years.
106 The other Mongol coinages that had contained a sura were those of Hulagu's conquest territories and Mardin. All of that gold and silver had contained Sura iii:25 in the margin of either the obverse or the reverse, depending on the issue, and stopped with the reform of Arghun. However, Arghun had an unusual copper series from Baghdad

in 683 and 684 H, which resembled the silver legend and contained the sura. Only Gaykhatu had put the same sura on his gold of Tabriz.

107 Lowick, "Islamic Coins", 251.

108 Uljaytu was in Tabriz in mid-October or Rabi' I, the third month, for a few days and then again in June–July for a full month over Dhu al-Qa'da and Dhu al-Hijja, the last two months of the year; Melville, "Öljeitu", 64.

109 The calculations would perhaps have been according to steppe tradition because it is a little early in hijra years.

110 It is located probably north or even in the small basin known presently as the Chaldiran Plain.

111 Melville, 58.

112 For 704 H, American Numismatic Society 62.127.53; 2.13 grams.

113 American Numismatic Society 49.103.382; 2.12 grams. The date of 704 H is unclear but probable.

114 Steve Album, private collection; 2.13 grams.

115 Yapi ve Kredi Bankasi 10833; 4.30 grams.

116 For 704 H, Steve Album, private collection; 4.06 grams. For 705 H, Yapi ve Kredi Bankasi 10902; 4.48 grams. For 706 H, Yapi ve Kredi Bankasi 10903; 4.22 grams.

117 Steve Album, private collection; 4.22 grams.

118 Steve Album, private collection; 4.27 grams.

119 Steve Album, private collection; 4.21 grams. The date is unclear but probably 704 H. Only one coin is known.

120 Steve Album, private collection; 4.28 grams.

121 Steve Album, private collection; 4.22 grams. The complete date is off the flan.

122 Steve Album, private collection; 4.22 grams.

123 For 704 H, Yapi ve Kredi Bankasi 10851; 4.25 grams. For 706 H, Yapi ve Kredi Bankasi 10849; 4.25 grams. For 707 H, Yapi ve Kredi Bankasi 10854; 3.97 grams. Then for 709 H, Yapi ve Kredi Bankasi 10853; 4.20 grams.

124 For 704 H, Ashmolean Museum 165; 4.35 grams. For 705 H, Münzsammlung (Munich) 85044; 4.60 grams.

125 Ostrowski, *Muscovy*, discussing a period somewhat later, states that "the spice route through the Indian Ocean was diverted by the Ilkhanate northward through Hurmuz to Tabriz away from the Basra–Baghdad entrepots", 111. The exact routes are open to speculation, but Ostrowski clearly illustrates the importance of trade to urban wealth and the likelihood of routes changing during the period.

126 The actual weights, not the theoretical ones, are cited here. The pattern of weights and dates of new coin designs which emerged after the main part of this study are found in Blair, "Mint Organization", 212–13.

127 Kolbas, "Mongol Money", Graph 18 for Uljaytu, and previous weight graphs, all of which have detailed statistics with a commentary.

128 Wassaf reported under the section of Shiraz's back taxes that "every single mithqal of pure gold (*īlā*) is equal to four current dinars and every single mithqal of pure silver (*ṭalghūm*) is equal (with respect to the) dinar [has the same number] ... The law became such that the standard of (all) types of coin for gold and silver, which is current and customary among the people, had this fixed relationship. ... Current transactions ... (of) exchange and consideration of opportunity [interest] occurred in these terms"; 'Abd Allah b. Fadl Allah Waṣṣaf al-Hadrat, *Tajziyat al-Amsār va Tazjiyat al-A'sār: Muqāta'a-i Fārs va Turan: Kitāb-i Mustatāb-i Waṣṣāf* [A History of the Mongols of Persia and Turkestan], ed. 'Abd al-Rahman Ayammī, lithograph edition (Bombay, 1853). The passage is inexplicable unless Wassaf used the term *dīnār* loosely to also mean a weight lower than the mithqal, in this case the *dāng*. If he did, then Wassaf was referring to taxes after 734 H in gold and silver calculated at four *dāng*s or two-thirds of the mithqal.

11

OVERVIEW

Mongol caravans, markets and taxation in Iran

The previous study of numismatic material has focused on the founding and development of the Mongol state in Greater Iran over approximately 100 years and concludes in 709 H/1309 AD. Around the turn of the eighth century, the state began to exhibit its most remarkable cultural and economic heights; but a similar study of its remaining twenty-five years would require another substantial collection of photographs and a detailed analysis of raw data from thousands of coins. The existence of so much coinage as well as many mints indicates that the government had finally succeeded in monetizing most of its activities and the economy. The achievement required an invasive administration, which meant that in spite of the limited number of Mongols, they had not remained a small, tight group at the top, skimming off the fruits of victory. Instead, they had penetrated and developed the existing apparatus, thereby affecting every aspect of life including literature, science, mathematics, art, architecture and most certainly commerce. The political stability they had brought created a flourishing empire that still provides few clues to its quick collapse in 736 H/1336 AD. Once the ruling family left the scene, a model remained that few ensuing states managed to emulate. For those later regimes, the Mongols in Greater Iran bequeathed two important features. First, they had turned the relatively limited vision of its inhabitants away from the west. Previously, Iranians had drawn much of their religion, philosophy, artistic expressions and most of their cultural contacts from major interactions with the Mediterranean world. During the Mongol period, they faced eastwards as well, expanding their concepts and roles immeasurably. Second, the Mongols united the territory. Earlier, much of Iran had been divided into various small and large polities that had allowed people to waste energy on local interests and control of petty areas. The Mongols managed to divert much of that focus away from clans to individuals; people joined a commonwealth rather than protested against the rulers or each other. Unity and an expanded perspective had emerged from the Mongols' practical responses to political challenges as well as long-term goals of power and prosperity. Therefore, the structural organization and economic progress of the state are some of the previously unrecognized points that the foregoing study has revealed.

In regard to the aspect of state structure, the Mongols had a particular advantage as nomads; on the warpath, they could bring along a full contingent of administra-

tors for securing new regions. Mongol military efficiency, however, made conquests fast and extensive, which precluded every general or prince from installing a full bureaucracy. The civilian authorities were generally over-extended, and they often had to make various attempts before they were able to incorporate new areas into the general framework of the state. Chingiz Khan exhibited the preferred model not only in the capture of Beijing but also at the conquests of Bukhara and Samarqand. From both chroniclers and numismatics, the evidence shows that, initially, his administration differed little from previous steppe empires such as the Qara Khitan confederation. In the standard system, the conquerors left the indigenous communities intact but extracted yearly lump-sum payments. In the same way, the Mongols assigned a local leader as the group's representative, who collected the tribute. Beyond this aspect, the Mongols also demanded manual labour for specified tasks and military duty for campaigns. To maintain their hold in local territories, they levied special taxes in kind to supply the army, imperial messengers and patrols. It was these assignments in particular that became monetized as the state grew more stable and better integrated.

Tribute monies allowed the local people to remain intact and economic structures to continue unaltered. Commercial activity before the arrival of the Mongols was not a government concern since the Khwarazmshah's empire had been a piece-meal affair with little standardization. Therefore, as Chingiz Khan advanced from Transoxiana into Khurasan and Zabulistan, the major cities operated as self-managing entities, providing tribute payments. However, the area showed strong resistance to Mongol control, reaping from its actions serious ruin but not complete devastation on the army's retreat. In the Khurasan–Zabulistani campaign, the normal method of administration failed the Mongols; so while waiting for its completion and during withdrawal, Yalavach taxed the army itself to support the state. This tax was based on a set amount from each person, being a head or poll tax, which had developed out of the nomadic herd tax.

As most of the army withdrew with Chingiz Khan to Mongolia, the military established secure trade routes across Central Asia. Shortly after, the Mongol government that had remained in Samarqand instituted a customs tax which joined the tribute from local groups. Thus, within five years of Mongol conquest, the pre-eminent purpose was achieved with the promise of a richer life. The Mongols did not have a philosophy to impart to the world; everyone could hold his own beliefs. Their aim was an expanded economic base with their steady access to it.

Significantly, the death of Chingiz Khan did not diminish the expansionist fervour; and the Mongols re-applied themselves to it. The khan's successor, Ogedai, directed large armies to follow up the various sorties of the early years. The new efforts brought enough manpower to out-lying areas that re-enforced Mongol agents in the cities. As control increased in Greater Iran, an administration emerged that was similar to the one Chingiz Khan had established in Transoxiana. However, since Ogedai was not in the region, it required the initiative of a regional governor, Chin Temur, to start it. In a calculated display of his political and administrative skills, Chin Temur orchestrated a ceremony before the khan that resulted in the

creation of the third imperial province. He became the governor of Khurasan; but soon his deputy, Kirgiz, succeeded him. Then with the major re-alignment of governors after the Tarabi Revolt, Kirgiz extended the third province as far west as the Mongol armies had ridden, that meant all the way into eastern Anatolia. Later conquests or submissions such as those of Anatolia, Cilicia and Kirman did not come under this mandate, being considered vassals and paying tribute. Immediately upon receiving his new powers, Kirgiz set out to impose civilian control in the far west. His first act was to tax the army, which succeeded with the help of his Khurasani officials. The general in Adharbayjan had already set up imperial workshops, especially in Tabriz; so soon Kirgiz also imposed a customs duty. Within two years of the extension, the poll tax was discarded as the occupying army became absorbed into the state; and the trade tax emerged as the main source of income for the third province.

The goal of improving trade becomes ever more evident as the empire developed during the reign of Ogedai. Its successful attainment was manifested in the caravans that entered Mongolia from across the realm, which had been diverted from the normal southern route going through Tangut territory. Unfortunately, under his successor, Guyuk, the empire stretched to almost breaking; and by the end of his rule, many areas in the west had become semi-independent, providing only tribute. The vassal structure continued in large part with the Batu–Arghun agreement in the first years of Mongka's reign. However, the new khan had a centralizing vision for imperial territory and installed in it the poll tax system of Yalavach. This time, however, the tax was applied not just to the army but to everyone. The entire empire was subjected to a census and a standard rate. In practice, this level differed in various areas; and in the third province, it matched the rate apparently found throughout the Near East. The poll tax allowed the imperial treasury a definite and assured income for basic expenses, but it was not enough to provide regular income for bureaucrats. Even with Mongka's reform, much local extortion probably occurred that would not have been necessary if officials had received a regular distribution and allocated the appropriate expenditure of revenue. The problem of restricted income could have been rectified by taxing expanding trade. However, such a solution was not acceptable at this point since it conflicted with the theory of the state. Although a commercial tax had existed in Chingiz Khan's time, its main role had been codified soon afterwards. In essence, customs duty was the income assigned to princes of the blood to run their own domain. This distinction between central and regional finances meant that the imperial treasury was not required to defray local princely costs. Thus, when Hulagu conquered 'Iraq-i 'Arab, the Jazira and Fars, making the Il-Khanate, he had no alternative but to use this local tax. Presumably, if Hulagu's campaign into Syria and Egypt had succeeded, he would have applied the same model there. The early Mongol state struggled constantly with the theory of taxation; that is, to maximize revenue by basing it on labour (tribute and the poll tax) or commerce.

The dual financial organization of the empire collapsed with the Battle of Harat in 667 H/1289 AD. This conflict finally allowed progress in the development of

the administration of Greater Iran because the third province was no longer considered part of a larger Mongol Empire. Gradually over an extended period under Abaqa, the province and the Il-Khanate were joined as the treasury eliminated most tribute, discarded the imperial poll tax and made customs duty its main source of revenue. Although Abaqa unified Greater Iran, displacing the Il-Khanate in the period from 676–83 H, the whole territory still functioned on a regional basis. Initially, Arghun overcame the distinctions; but in mid-reign, he returned to this structure by dividing the empire into three sections. Then for almost ten years, the state floundered as the Jazira extended its control into Luristan and ʿIraq-i ʿAjam and Khurasan became distanced from the centre. Thus, from 688 H/1289 AD, barely twenty years after the Battle of Harat, the Mongols began to decentralize their empire. Under Ghazan, the trends resulted in a peripatetic administration that directed a tri-partite state. The regions had greatly expanded since the beginning of the khanate and political progress ensured that all of them followed essentially the same policies. Nevertheless, cracks began to appear as Ghazan allowed Georgia, Luristan and Mardin to re-assert some local hegemony. Within the next decade, however, Uljaytu re-invigorated Ghazan's policy to integrate the state's structure.

The later organization of the empire reflects the progress of the trade tax as more items were included in the register such as the extraction industries of mining, fishing and other in kind produce. With commerce being the backbone of government finances, the Mongol khans strove to improve their financial system with the most advanced quality control and production measures available. In so doing, they radically changed the theory and application of money; and their new system lasted long after their own demise.

To compliment the economic development, Mongol trading contacts within and without the realm expanded enormously over the century. They are most noticeable from the weight standards and types of metal selected for the coinage. The first connection occurred in Samarqand, which dealt with caravans from the east. Later, the new administration in Adharbayjan tapped into the network of the Jazira, which led further west to Syria and south to Baghdad. Commercial interests expanded quickly as, around 640 H/1242 AD, officials understood the enormous possibilities of Anatolia and encouraged Mongol trading houses to cross the Nakhchavan area. Quickly, however, they realized that direct co-operation of Anatolia was essential, a goal that became an important aspect of subsequent Mongol actions. Because the Jaziran route was in the hands of others, the Mongols disrupted it with constant forays as their trade began to use the Anatolian plateau. However, internal Mongol politics and succession struggles during the reign of Guyuk reduced the full potential of Anatolia for some time.

Even when Mongka came to power, the regime did not re-emphasize trade. Instead, the khan's attention had to be directed to tightening his control over the fractured empire. Only after Hulagu took Baghdad and accepted the Jazira's submission did trade begin to improve again. The Mongols then had two avenues to the west and had also acquired the long-established route to coastal India and southern China through the Persian Gulf. Under Abaqa, when the trade tax operated

for the whole realm, traffic grew from the northern steppe, going through Georgia into Adharbayjan or west through Anatolia to the Syrian coast. Unexpectedly, however, the Il-Khanate suffered administrative and economic decline. Then in the reign of Arghun during the 680s, commerce increased substantially everywhere. Regionally, an attempt was made to divert some of the Central Asian trade of Samarqand into Khurasan; and there was even more activity in the south as Shiraz strongly targeted the Indian and Egyptian markets. This drive was so successful that gulf trade became the mainstay of the state's treasury under Arghun's brother, Gaykhatu, and his cousin, Baydu. In contrast during those reigns, Anatolian tribute based on trade declined; and Khurasan lessened its contacts with Transoxiana. Once Ghazan took firm control, trade flourished once again as the gulf retained its pre-eminent position. Moreover, Anatolia was re-vitalized as its tributary status was lost and the Jaziran connection faltered. Most importantly in Ghazan's reign, the internal market continued to improve, which encouraged short-haul trade. During Uljaytu's first period, Anatolian trade burgeoned even more as the result of a treaty with the other Mongol khanates on the steppe, out-flanking the Venetians for the Egyptian trade. Meanwhile, Baghdad took over gulf commerce, the most lucrative single route in the empire, giving it major power over monetary affairs and taxation policy. Both Ghazan and Uljaytu saw Baghdad as the engine running the treasury and started their financial reforms there.

Throughout the Mongol period, armed conflict can be seen as a major factor in economic development. In particular, it was undoubtedly the best way of extending control over trade routes. For example, not only was the conquest of Samarqand the result of the failed honouring of a commercial treaty but also Arghun Aqa's governorship began with Baiju harrying the Jaziran route to make trade go through the newly conquered territory of Anatolia. On the other hand, unsuccessful campaigns also had an impact such as Ghazan's moves into Syria, which made the Jaziran conduit uneconomic. In another aspect, the often intransigent Georgians controlled the normal route for goods between the steppe and Iran, control that encouraged insurgency and gave them much leverage in obtaining financial and political favours. In the south, Hulagu's capture of Baghdad expanded Mongol activity to the sea routes going from Egypt to southern China, a lively network of warm-water trade. By obtaining a strong position on that route, Hulagu finished tying up Mongol authority over much of the world's trade to and from the east. At the same time, gulf commerce forced Baghdad and its port of al-Basra to vie with Shiraz and Hurmuz. The economic rivalry between the two affected local politics as some marginal areas became independent by the end of the century. Conflict and competition, therefore, could fuel economic advances.

In summary, the Mongol state in Greater Iran quickly outgrew the traditional steppe pattern of rule. Tribute kept indigenous groups together whereas the poll tax was developed into a means of integrating all ethnic and religious groups into the same system. Once that aim was accomplished, the government needed more revenue and steadier income to expand its apparatus. The customs duty with its adjunct taxes was the means both theoretically and practically to achieve this goal.

Such a tax required a unified and comprehensive monetary system to facilitate constant exchange media and reliable stores of value. As a result, monetary policy was always a keystone of the government's fiscal activities. The culmination of the Mongol state in Iran was Ghazan Khan's reign, in which all aspects of government finance strove to provide a flourishing market and an expanding economy.

APPENDIX

People and positions

This section contains a brief description of the major people involved in the Mongol rule of Greater Iran. The simplification should not hide the many nuances and probabilities explored in the text, but it does provide a quick way to recognize many of the important personalities and programmes they represented.

Abaqa Ruler of Greater Iran from 1265–82 AD. The eldest son of Hulagu. He defeated the Ogedaid–Chaghadaid alliance at the Battle of Harat in 1270 AD to create his own empire. He had major reforms of the administrative, monetary and taxation systems.

Abish Salguridd atabag of Fars from 1265–84 AD. When she retired to Tabriz, the line came to an end; and Fars was incorporated into the Mongol state.

Abu Sa'id Last effective Mongol khan of Greater Iran, who ruled from 1316–35 AD. The son of Uljaytu Khan. He was only twelve when his father died; so the commander, Choban, was in effect the ruler until Abu Sa'id executed his family and faction by 1329 AD.

A-hai, Yeh-lü First plenipotentiary governor of the province of Turkestan from 1219–23 AD appointed by Chingiz Khan. He was a Khitan involved with the Mongol conquests of China. With his brother, he and his family had enormous power for generations.

'Ala' al-Din Muhammad Last effective Khwarazmshah, who fled the invading Mongol forces. From Urganj on the Aral Sea, he reigned over most of Iran and Afghanistan from 1200–19 AD. He died on an island in the Caspian Sea in 1220 AD.

Arghun Mongol ruler of Greater Iran from 1284–91 AD. The son of Abaqa Khan. He restructured the empire by removing former power blocs, completing the monetization of the entire realm and modernizing in various reforms the theory and application of money.

Arghun Aqa Mongol civilian governor of the third province of the empire from 1243–74 AD. He kept the province stable and under imperial control during the tumultuous period from 1242–51 AD, even extending political influence to Syria. He was active in Khurasan, rebuilding many cities, and died peacefully still advising the court on economic policies.

Ariq Buqa One of the sons of Tolui and the younger brother of the khans Mongka, Khubilai and Hulagu. He led a faction against Khubilai for the position of imperial khan. Ultimately, his opposition helped to destroy the political integrity of the empire.

Baiju Replaced Chormaghun as the leading general in the west. He was immediately successful in the conquest of Anatolia in 1243 AD and continued his activity through and beyond the capture of Baghdad in 1258 AD.

Baraq Chaghadaid ruler of Transoxiana from 1266–71 AD. With Qaydu, he challenged the authority of Khubilai and the integrity of the third imperial province. He took control of Khurasan until defeated at the Battle of Harat in 1270 AD. His challenge resulted in the final collapse of the original Mongol Empire.

Batu Ruled the Russian steppe from 1225–55 AD and founded the Golden Horde. The middle son of Jochi, he established his headquarters at Bulghar in 1234 AD. He was instrumental in resolving the imperial civil war by supporting Mongka in 1251 AD. His independent status within the empire was the model for the Ogedaids, Chaghadaids and Toluids to attempt to form their own regions. He controlled much of the east-west trade route, and his successors developed north-south trade to reach from Muscovy to the Mamluks of Egypt.

Baydu Mongol ruler of Greater Iran in 1295 AD. He was the son of Abaqa's brother, Taraqai. He deposed his uncle, Gaykhatu, although he continued most of his uncle's policies. He was deposed in turn by Ghazan in the second Iranian civil war.

Berke Mongol ruler of the Russian steppe from 1257–67 AD. He was the younger brother of Batu. He attempted to retain the influence Batu had established within the third imperial province. In general, Hulagu considered that most special interests had elapsed with the death of Batu, but tension and sometimes open conflict existed.

Buqa Mongol prime minister or wazir under Arghun Khan from 1285–9 AD. He and his brother, Aruq, replaced the Juvayni family. He was instrumental in moving the monetary and fiscal structure of the empire away from the tenets held by Arghun Aqa. His system revolutionized the Near East for approximately four centuries. His changes were dramatic, which created a backlash from Persian contingents at court that finally cost him his head.

Chaghadai Ruler of the middle steppe north of the second imperial province from 1227–41 AD. The second son of Chingiz Khan. His area covered the central portion of the trade routes. He and his successors were strong adherents of Mongol traditions, the confederation principle and the laws of Chingiz Khan.

Chin Temur Creator of the third imperial province. Perhaps a Qara Khitan, he was first a diplomat in 1219 AD, then appointed by Jochi as the governor of Urganj and finally appointed by Ogedai as the governor of the new third imperial province from 1232 to his natural death in 1235 AD. He adopted the same administrative methods used in the second province of Turkestan.

Chingiz Khan Founder of the Mongol Empire. He was born in 1155, 1162 or 1167 and died in 1227 AD. The Mongol state was created in 1206 AD. His early years were spent gathering the various groups on the Mongolian Plateau and then moving south to central China before taking its northeastern city of Beijing in 1215 AD. After that, his attention returned again to Central Asia; and he continued westwards into modern Afghanistan. He followed the standard administrative model of steppe empires except that his tight control over the military allowed him immediately to increase central powers. That control resulted later in a new type of steppe empire. He had four sons starting with Jochi, then followed by Chaghadai, Ogedai and Tolui.

Chinqtai Pre-imminent minister in charge of financial and urbanization policies at the imperial court, especially serving Ogedai. He was the main advocate of centralization and organized the first census of northern China in 1235–6 AD.

Chormaghun First leading general to maintain Mongol control over Greater Iran. Originally, Ogedai instructed him to take Khurasan and Sistan and to capture the troublesome last Khwarazmshah, Jalal al-Din, in 1230 AD. He stayed in Adharbayjan, setting up an administrative network and establishing government-controlled manufacturing.

David Narin Ruler of Georgia from 1245–93 AD. He was appointed by the Mongols to share power with his brother, David Ulguh. Later, they divided the region, a policy the Georgian rulers continued intermittently, representing part of the difficulty the Mongols had in controlling Georgia.

David Ulugh Ruler of Georgia from 1245 AD, sharing power with his brother, David Narin. In 1270 AD, he became the sole ruler of Tiflis and eastern Georgia. His line continued with his son, Dimitri, in Arghun Khan's reign, to the end of Mongol rule.

Eljigedai Leading general of a new campaign to the west in 1247 AD. However, the increasing enmity between Guyuk and Batu re-directed his purpose. The campaign led to instability in the third province and the collapse of central civilian administration and taxation so that local dynasties regained some autonomy.

Gaykhatu Ruler of Greater Iran from 1291–5 AD. The younger brother of Arghun Khan, he followed most of the same policies. However, the empire had evolved fast, breaking down former methods; and he was murdered by Baydu Khan.

Ghazan Ruler of Greater Iran from 1295–1304 AD. He was the elder son of Arghun Khan and deposed his cousin, Baydu, by conducting the second civil war in Iran. He won the realm, but it was in complete chaos. After following the traditional management technique, he revolutionized the structure of the empire. He took control into his own hands by centralizing most command decisions at his camp. Since this method meant that the government literally followed his peripatetic migrations, he decentralized the geographic integrity of the empire. On the other hand, his massive reform programme attempted

to continue the unification of administrative practices and the extension of a market exchange system to the full economy.

Ghiyath al-Din Brother of Jalal al-Din Menguburni, who tried to re-establish Khwarazmian control over central Iran after the initial Mongol invasion. He conceded power to Jalal al-Din once the latter had left India. His atabag led disaffected contingents into Adharbayjan in 1225 AD, devastating it before Jalal al-Din took over.

Ghiyath al-Din Son of Rashid al-Din, he was appointed the prime minister ten years after his father's death to serve under Abu Sa'id from 1327–36 AD. He was part of the new civilian dynasty established by Ghazan when the khan revolutionized the government in 1297 AD. He and his power bloc were, in turn, removed through execution in 1336 AD, a year after the khan's death.

Guyuk Third imperial ruler of the Mongol Empire from 1246–9 AD. He was the son of Ogedai, but he was not immediately elected to take over. Conflict between his court and that of his mother divided the empire so that administrative progress relapsed. He considered his cousin, Batu, a serious threat and was marching against him when he died from illness. His legacy was a disunited empire and much hostility between factions, which resulted in a bitter civil war that lasted for two years.

Hulagu Brother of Mongka, Khubilai and Ariq Buqa. He was assigned by Mongka to re-assert control over the third province in 1256 AD after the stabilizing influence of Batu had ceased. He was also empowered to continue Mongol conquests to the west, which he started by capturing Baghdad in 1258 AD and then advancing on Syria in 1260 AD. With the death of Mongka Khan in 1260 AD and the separatist movements of the other branches of the imperial house, he stayed in Greater Iran, holding on to it as Toluid territory and supporting Khubilai as the new imperial khan. His realm included the imperial third province, whose structure remained the same, and his new conquests, which he ruled according to the principles of the princely appanage system. He died a peaceful death in 1265 AD.

Jalal al-Din Menguburni Son of 'Ala' al-Din Muhammad, he was ultimately the heir to the Khwarazmian sultanate after its defeat by Chingiz Khan in 1219 AD. He inspired much support for his position of resisting the Mongols, initially by defeating the Mongol army at Parvan, north of Ghazna. Finally, he founded a new state in Adharbayjan with Tabriz as his capital in 1221 AD. Unfortunately, he continued his military exploits and lost the Battle of Akhlat in 1230 AD. He left his territory a year later to seek asylum in Amid; but, being refused, he fell prey to bandits in the Hazro Hills just north of Mayyafariqin. The mysterious circumstances of his death kept the spectre of resistance alive for many years. He captured the imagination of contemporaries with his military prowess, but his administrative and diplomatic skills were negligible.

Jochi Eldest son of Chingiz Khan. After the initial conquests of Bukhara and Samarqand, he was in charge of the campaign into the Khwarazmian heartland and took Gurganj in 1221 AD. He remained in the area of the northern steppes, using as his centre the city of Bulghar on the middle reaches of the Volga River. He also oversaw the administration of Gurganj. He was about forty years old when he died in 1225 AD, two years before his father did.

Juvayni, 'Ata Malik Brother of the wazir, Shams al-Din Juvayni, he was the governor of 'Iraq-i 'Arab and Fars from 1263–81 AD. He was part of the administrative shake-up that Hulagu imposed on his realm after the death of Mongka Khan. He understood and enhanced the unique position of Baghdad during the restructuring of the realm after the Battle of Harat in 1270 AD by making the city the leading government and commercial centre for three years. However, once the imperial court was restructured, Tabriz re-asserted its power. He was later accused of misconduct and died from a stroke over the allegations in 1283 AD. He was a representative of the educated Persian class dedicated to the khans and was the author of an invaluable and comprehensive history of the early years of Mongol rule in Greater Iran.

Juvayni, Shams al-Din Prime minister under Hulagu, Abaqa and Tegudar from 1263 to his execution by Arghun Khan in 1285 AD. He was the brother of 'Ata Malik Juvayni and a member of a Persian secretarial dynasty from northern Khurasan. An adept politician and military leader, he also patronized the arts.

Khamush Son of Uzbag. He was confirmed by Chormaghun after the collapse of Khwarazmian control as the nominal Ildigizid ruler of Adharbayjan about 1232 AD.

Khubilai Nominal Mongol imperial khan, who ruled in Beijing from 1260–94 AD. He had to contest the position with his brother, Ariq Buqa, and did not have the support of the Chaghadaids and Ogedaids. As a result, western Mongolia and the central steppe were not under his effective control. He was the brother of Mongka, Hulagu, and Ariq Buqa. He founded the Yuan Dynasty in 1272 AD and finally concluded the conquest of southern China in 1279 AD.

Kirgiz Uighur civilian governor of the third imperial province from 1235–42 AD. He succeeded Chin Temur and established his capital at Tus. He made substantial progress in the taxation and administration of Khurasan until the Tarabi Revolt in 1239 AD. After that event, the province was extended to the edge of Anatolia. He immediately sent officials there to establish civilian control over Chormaghun. In the next year of 1240 AD, he further encouraged trade though the area and began to tax it. He, too, followed the lead of the second province in his approach. He was an imperial appointee although he was challenged by the Jochid representative, Sharaf al-Din. Supported by Chinqtai at the imperial court in his centralization policies, he forfeited his life in the struggle against those who advocated confederation practices.

Kul-Bolat An important general serving under Chin Temur. He supported Sharaf al-Din against Kirgiz in the early years of their power struggle. The legal battle was to be settled at Ogedai's court, but his sudden murder in an unrelated incident at Samarqand in 1238 AD allowed Kirgiz to win the case and retain his post.

Laksi One of the sons of Arghun Aqa and the brother of Nawruz. He was a general in charge of the Baghdad region under Baydu Khan and apparently was instrumental in ensuring the loyalty of that region during Ghazan Khan's early period. In the purge of 1297 AD, he and his extended family were killed.

Lu'lu', Badr al-Din Ruler of al-Mawsil from 1222–60 AD. He originally served the Zangids but then gained independent status. He was instrumental in negotiating peaceful settlements between the Mongols and many principalities in Syria and the Jazira. He had a powerful diplomatic position that his son lost in a revolt against the Mongols starting in 1260 AD. Nevertheless, even under Mongol rule, the city was the economic centre of the Jazira with important trade relations with Syria and the gulf.

Mas'ud Bag Civilian governor of the second imperial province, Turkistan, from 1238 to his natural death in 1289 AD. He was the son of Mahmud Yalavach, taking over his position when his father was transferred to northern China. He was an active governor, bringing the region to great prosperity; but he always had difficulties maintaining his policies against the pressure of the Chaghadaids and Ogedaids on the steppes. His sons continued to hold the position well into the next century.

Mengu-Bolad Local Mongol governor of Tabriz from about 1232–52 AD. He was not only in charge of local security but also managed the light manufacturing for Mongol consumption and trade. He attempted to advance his position with the help of the local Ildigizid dynasty to become the governor of Adharbayjan in 1247 AD during the internal rivalries at the imperial court. The attempt put him into conflict with Arghun Aqa, who eventually retained control of the whole province.

Mongka Imperial khan from 1251–60 AD. He was the eldest son of Tolui and brother of Khubilai, Hulagu and Ariq Buqa. He gained his throne after an extremely bloody civil war that left most of the Ogaidid and Chagadaid families dead. He relied heavily on Jochid support from Batu. He restructured the entire realm, in particular introducing standardized taxation and legal procedures. His approach was conservative and highly centralized, which kept the empire together for another ten years after his death.

Najm al-Din Ghazi II Artuqid ruler of Mardin from 1294–1312 AD. He was an astute politician who continued to increase Mardin's political and economic hold over the Jazira to rival al-Mawsil. However, the Mamluk raid and sacking of the city in 1299 AD and Ghazan Khan's subsequent campaign into Syria severely affected the prosperity of the region. He was given increased local sovereignty when Ghazan Khan revised his policy towards regional rulers in 1301 AD.

Nasir al-Din Tusi Pre-eminent intellectual of the Mongol period, who died in 1273 AD. He studied with the Isma'ilis and joined Hulagu's court in time to be present at the capture of Baghdad. He later contributed significantly to the practice and theory of government and financial administration. He also established a scientific centre at Maragha that included an astronomical observatory. He was a brilliant mathematician as well as a renowned philosopher and astronomer.

al-Nasir li-Din Allah Islamic caliph residing in Baghdad from 1180–1225 AD. He had the spiritual loyalty of all Muslims but controlled only the region of 'Iraq-i 'Arab. He was politically active against Jalal al-Din Menguburni, who tried to march on Baghdad.

Nawruz Military governor of Khurasan. He was the son of Arghun Aqa and brother of Laksi. He led a revolt against Ghazan from 1289–94 AD. In his settlement with Ghazan that ended the revolt, he retained his position as the second person in charge of the region. Then he became the king-maker as he led the forces against Baydu to put Ghazan on the throne. He was also an ardent convert to Islam and convinced Ghazan and much of his court to become Muslims. With the success of Ghazan's revolt, Nawruz continued to be the main person in charge of organizing the empire. His drastic actions caused great havoc, which quickly left the realm in even greater shambles than before. His earlier reliance on the Chaghadaids and inability to effectively run the empire made Ghazan gravely suspicious of him. The khan ordered his death and that of all of his family early in 1297 AD. The purge was a systemic one, Ghazan removing the extensive power bloc of the former imperial governor, Arghun Aqa, his family and adherents.

Nizam al-Din Agent of Kirgiz and Arghun Aqa active in Adharbayjan from 1240 to about 1245 AD. His brother was the local ruler of Khurasan, residing in Isfara'in; so he had experience with administration and advanced the incorporation of Persians into the Mongol state. His assignment was to establish civilian control over Chormaghun's forces and then to organize commercial activities, especially trade with the west. Although he lost ground during the tenure of Sharaf al-Din, he regained his position under Arghun Aqa.

Nusrat al-Din Ildigizid ruler of Nakhchavan and son of Khamush. He was re-established by the Mongols after the conquest of Rum in 1243 AD. He was responsible for Mongol coinage in Adharbayjan in 1245 AD and then, with the assistance of Mengu-Bolad, became the commander of the Mongol forces in Adharbayjan and Tabriz in 1247 AD. He lost his position when Mongka Khan came to power.

Ogedai Imperial khan from 1227–41 AD. He was the third son of Chingiz Khan and succeeded him. He continued both the military campaigns and administrative evolution of the empire, helped greatly by the same men who had served his father.

Qaydu Ogedaid ruler of Transoxiana from the mid-1250s to about 1280 AD. The grandson of Ogedai, he made an alliance with Baraq against the Toluids to contest Khurasan. After the death of Baraq, he was the main ruler of the central steppe and regulated the programme of Mas'ud Bag in the cities. He was a constant threat to Khubilai and often harassed the trading network of eastern China.

Qilij Arslan IV Rum Saljuq ruler of Anatolia from 1248–65 AD. He was appointed by the Mongols and for the first nine years ruled jointly with his brothers but without much power. During his early period, Georgian administrators implemented Arghun Aqa's instructions.

Rashid al-Din Chief minister under Ghazan and Uljaytu Khans until 1317 AD. He was executed in 1318 AD as a victim of the intrigues of another minister. He did not have any military role but was chiefly an administrator. He greatly patronized the arts and built a suburb in Tabriz. He also authorized the compilation of numerous literary works, including religious tracts and a valuable comprehensive history of the world and Mongol rule.

Rusudam Bagratid queen of Georgia who formed a marriage alliance with the Saljuqs of Arzan al-Rum in 1228 AD to offset the increasing power of both the Mongols and Khwarazmians. During her reign, the country regained its prestige and power and had a tight commercial tie with Anatolia.

Sa'd al-Dawla Prime minister for Arghun Khan from the end of 1289–91 AD. He represented the Persian bloc in conflict with the new Mongol administrative elite represented by Buqa. Although applauded by some contemporary historians, he lost control of administration and was executed as Arghun Khan lay dying.

Sadr al-Din Agent of Arghun Aqa, appointed as the governor of Tabriz and Adharbayjan in 1246 AD, replacing Mengu-Bolad, and re-appointed by Mongka and Hulagu. He established the imperial poll tax in Tabriz, making the city the capital of Greater Iran. He disappeared in 1260 AD with the administrative reform. However, since at that point *tamghas* were introduced on the coinage, he may have been promoted to being the mint master for the whole empire until 1263 AD.

Sharaf al-Din Financial administrator of the third province from 1230 to his death from illness in late 1245 AD. He was a Jochid appointee to Chin Temur but was in mortal conflict with Kirgiz once the latter became an imperial appointee. He lost his position under Kirgiz but gained it back under Arghun Aqa. He was an impressive administrator, taxing the whole realm; and, after some disruption, his policies were revived under Mongka Khan.

Shigi Qutuqu Adopted son of Chingiz Khan, technically the eldest of them all. He led most of the brutal massacres in Khurasan and lost the Battle of Parvan to Jalal al-Din Menguburni in 1221 AD. He was a better administrator than he was a general and, later, became the chief judge of the imperial court and perhaps wrote *The Secret History of the Mongols*.

Tegudar Ruler of Greater Iran from 1282–4 AD. He was the brother of Abaqa Khan but was deposed by his nephew, Arghun Khan, in the first Iranian civil war. He shared with his brother the title of Il-Khan, which was phased out officially after him. He converted to Islam but relied heavily on the Christian Georgians, granting them religious expression on their coinage.

Tolui Fourth son of Chingiz Khan. He was most active in the Khurasan campaign that protected Chingiz Khan's rear during the progress south from Balkh. He apparently died young but was fortunate to have an extremely astute wife who raised three of her sons to become khans.

APPENDIX

Toqto'a, Ghiyath al-Din Jochid ruler of the Golden Horde from 1290–1312 AD. At first, he challenged the authority of Ghazan Khan, who counter-attacked with other legal claims. The rivalry seems to have been over the lucrative trade routes through the Caucasus. Eventually a treaty was reached, and both khanates reaped great wealth from active commercial ties.

Uljaytu Ruler of Greater Iran from 1304–17 AD. He was the son of Arghun Khan and the younger brother of Ghazan Khan. He continued the innovative policies of his brother and supervized the cultural, political and economic height of the Mongols in Greater Iran. He built a new capital at Sultaniya and patronized the arts and literature.

Uzbeg, Muazaffar al-Din Ildigizid ruler from 1210–25 AD. He fled from his capital, Ardabil, to Tabriz in the Mongol raids from 1220–4 AD. Then he succumbed to Jalal al-Din Menguburni and died a year later. The line resurfaced sporadically later under Mongol tutelage.

Yalavach, Mahmud Governor of the second province, working with A-hai's son, from 1225 to the Tarabi Revolt in 1238 AD. At that point, he was transferred to the post of governor for northern China. He was probably a Qara Khanid and had great diplomatic and administrative skills. For example, he conducted the trade treaty between the Khwarazmshah and Chingiz Khan. Later, he was apparently part of the civilian apparatus that travelled with Chingiz Khan during his invasion of Khurasan. At Balkh, he seems to have gained the leadership of a separate taxation branch that continued with Chingiz Khan's conquests into Zabulistan. His success during that campaign in taxing the local populace and then the army established him as the pre-eminent financial authority in the realm until his death in 1254 AD. His policies were implemented across the entire empire in Mongka Khan's reforms. His family continued to serve the Mongols in high positions for generations.

Zanjani, Sadr al-Din Chief minister from 1292–5 AD under Gaykhatu Khan and, for a brief period, under Ghazan Khan. He introduced Chinese paper currency in 1294 AD, but the innovation failed immediately and disastrously. Finally, he was accused of embezzlement and executed. His actions exhibited the epitome of intrigues and power struggles behind the scenes when there was weak leadership.

BIBLIOGRAPHY

Abū Fadl 'Allāmī. *A'īn-i Akbarī*, ed. and trans. H. Blochmann. Delhi, 1871; reprint, 1965.

Abu'l Faraj, Gregory or Bar Hebraeus. See Bar Hebraeus.

Album, Stephen. *Iran after the Mongol Invasion*, Vol. 9, *Sylloge of Islamic Coins in the Ashmolean*. Oxford, 2001.

—— "Calligraphers Created Dies for Islamic Coinage", *The Celator: Numismatic Art of Antiquity*, February 1988: 1, ff.

—— "Studies in Il-Khanid History and Numismatics II: A Late Il-Khanid Hoard (741/1340) as Evidence for the History of Diyar Bakr", *Studia Iranica* 14 (1985): 43–76.

—— "Studies in Il-Khanid History and Numismatics I: A Late Il-Khanid Hoard (743/1342)", *Studia Iranica* 13 (1984): 49–116.

—— *Marsden's Numismata Orientalia Illustrata*. New York, 1977.

Allan, James W. *Islamic Metalwork: the Nuhad Es-said Collection*. London, 1982.

—— *Persian Metal Technology, 700–1300 AD*. London, 1979.

Allen, W. E. D. *History of the Georgian People*. London, 1932.

Allsen, Thomas Theodore. *Commodity and Exchange in the Mongol Empire*. Cambridge, 1997.

—— "The rise of the Mongolian empire and Mongolian rule in north China", *The Alien Regimes and Border States, 907–1368*, Vol. 6, *The Cambridge History of China*. Cambridge, 1994: 321–413.

—— "Mahmud Yalavach", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*, eds Igor de Rachewiltz, Hsiao Ch'i- Ch'ing, Hok Lam Chan, Peter W. Geier, with assistance of May Yang. Asiatische Forschungen (series). Wiesbaden, 1993: 122–7.

—— "Mas'ud Bag", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*, eds Igor de Rachewiltz, Hsiao Ch'i-Ch'ing, Hok-Lam Chan, Peter W. G, with assistance of May Yang. Asiatishe Forschungen (series). Wiesbaden, 1993: 128–9.

—— "Mongol Princes and Their Merchant Partners, 1200–1260", *Asia Major*, third series, Vol. 2 (1989): 83–126.

—— "Mongol Census Taking in Rus', 1245–1275", *Harvard Ukranian Studies* 6 (1981): 32–53.

—— "Politics of Mongol Imperialism: Centralization and Resource Mobilization in the Reign of the Grand Qan Mongke, 1251–59". PhD diss, University of Minnesota, Milwakee, June 1979.

Amitai, Reuven. "Whither the Ilkhanid Army? Ghazan's First Campaign into Syria (1299–1230)" [sic], *Warfare in Inner Asian History (500–1800)*, ed. Nicola di Cosmo. Leiden, 2002: 221–64.

Amitai-Preiss, Reuven. *Mongols and Mamluks: The Mamluk–Ilkhanid War, 1260–1281*. Cambridge, 1995.

—— "An Exchange of Letters in Arabic Between Abaqa Īl-Khān and Sultan Baybars (A.H. 667/A.D. 1268–9)", *Central Asiatic Journal* 38 (1994): 11–33.

—— "Evidence for the Early Use of the Title *Il-Khān*", *Journal of the Royal Asiatic Society* 1 (third series) (1991): 353–61.

Amitai-Preiss, Nizan and Amitai-Preiss, Reuven. "Two Notes on the Protocol on Hulagu's Coinage", *Israel Numismatic Journal* 10 (1988–9): 117–28.

Andrews, Peter Alford. "The Mongols", *Felt Tents and Pavilions: The Nomadic Tradition and its Interaction with Princely Tentage*. London, 1999: 271–667.

Archibald, Marion M. "English medieval coins as dating evidence", *Coins and the Archaeologist*, eds J. Casey and R. Reece. Second edition. London, 1988: 264–301.

—— "The Mayfield (Sussex) 1968 Hoard of English pence and French gros, c. 1307", *Mints, Dies and Currencies*, ed. R.A.G. Larson. London, 1971: 151–9.

Aristotle. *Nicomachean Ethics*. In *The Ethics of Aristotle*, trans. D. P. Chase. London, 1911; reprint, 1947.

—— *Politics*. In *Aristotle's Politics*, trans. William Ellis. London, 1912.

Ashtor, Eliahu. "Levantine Weights and Standard Parcels: A Contribution to the Metrology of the Later Middle Ages", *Bulletin of the School of Oriental and African Studies* 45 (1982): 471–87.

—— *A Social and Economic History of the Near East in the Middle Ages*. Berkeley, CA, 1976.

Aslanapa, Oktay. *Turkish Art and Architecture*. London, 1971.

Atil, Esin. *Art of the Arab World*. Washington, DC, 1975.

Ayalon, David. "Studies on the Structure of the Mamluk Army–II, the Halqa", *Bulletin of the School of Oriental and African Studies* 15 (1953): 448–76.

Baer, Eva. *Metalwork in Medieval Islamic Art*. Albany, 1983.

Balog, Paul. *The Coinage of the Ayyubids*. Royal Numismatic Society Special Publication, No. 12. London, 1980.

—— *Umayyad, 'Abbasid and Tulunid Glass Weights and Vessel Stamps*, Numismatic Studies, No. 13. New York: American Numismatic Society, 1976.

—— "The Fatimid Glass Jeton", *Instituto Italiano di Numismatica Annali* 18–19 (1971–2): 121–212.

—— "Islamic Bronze Weights from Egypt", *The Journal of the Economic and Social History of the Orient* XIII (1970): 233–56.

Bar Hebraeus. *The Chronography of Gregory Abu'l Faraj or Bar Hebraeus*, trans. E. W. Budge. Oxford, 1932.

Barthold, V. V. [W.] *Turkistan Down to the Mongol Invasion*, fourth edition, ed. E. J. W. Gibb Memorial Trust. London, 1977.

—— *Four Studies on the History of Central Asia*, Vol. 3, *A History of the Turkman People*, trans. V. and T. Minorsky. Leiden, 1962.

Bates, Michael L. "History, Geography, and Numismatics in the First Century of Islamic Coinage", *Revue Suisse de Numismatique* 65 (1986): 231–62.

—— *Islamic Coins*. American Numismatic Society Handbook 2. New York, 1982.

Bawden, Charles R. "A Prayer to Qan Ataga Tingri", *Central Asiatic Journal* 21 (1977): 199–207.

Bedoukian, Paul Z. *Coinages of Cilician Armenia*. Numismatic Notes and Monographs No. 147. American Numismatic Society. New York, 1962.

Behrnauer, Walter. "Institutions de police chez les Arabes, Persans et Turc", *Journal Asiatique*, series. 5, 16 (1860): 114–90, 347–92, including translation of Rashīd al-Dīn's Chapter 21: 128–33; and translation of ʿAbd al-Raḥmān Shayzarī b. Naṣr, 17 (1861): 5–76.

Berchem, Max, van. *Materiaux pour l'épigraphie et l'histoire Musulmanes du Diyarbakir: Amida*. Heidelberg, 1910.

Berman, Lawrence V. "A Reexamination of Maimonides' 'Statement on Political Science'", *Journal of the American Oriental Society* 89 (1969): 106–11.

Bira, Sh. "Mongolian *Tenggerism* and Modern Globalism", *Journal of the Royal Asiatic Society* 14 (2004): 3–12.

Biran, Micahel. "The Battle of Herat (1240)(*sic*): A case of Inner Mongol Warfare", *Warfare in Inner Asian History (500–1800)*, ed. Nicola di Cosmo. Leiden, 2002: 175–220.

al-Bīrūnī, Muḥammad b. Aḥmad Abū al-Rayḥn. *Kiāb al-Jamāhar fī Maʿrifa al-Jawāhar*. Hyderabad, 1355/1936.

—— *English Translation, Notes and Indices of Albiruni's India*, trans, Edward C. Sachau. Chapter XV: Notes on Hindu Metrology. London, 1914.

Bivar, A. David. H. *Excavations at Ghubyrya, Iran: 1971–76*. London, 2000.

—— "Manūchirī's Māzandarān Ode: an English Version", *Journal of the Royal Asiatic Society*, second series (1990): 54–63.

—— "A Mongol Invasion Hoard from Eastern Afghanistan", *Near Eastern Numismatics: Iconography, Epigraphy and History*, Studies in Honor of George C. Miles, ed. Dickran K. Kouymjian. Beirut, 1974.

Blair, Sheila S. *Islamic Inscriptions*, Edinburgh, 1998.

—— "The Coins of the Later Ilkhānids: A Typological Analysis", *Journal of the Economic and Social History of the Orient* 26 (1983): 295–317.

—— "The Coins of the Later Ilkhānids: Mint Organization, Regionalism, and Urbanism", *Museum Notes 27* (1982): 211–21.

de Blois, Francois, *Poetry of the pre-Mongol Period*, Vol. V, *Persian Literature: A Bio-bibliographical Survey*, second revised edition (ninth to early thirteenth century). London, 2004.

Bosworth, Clifford Edmund. *The Later Ghaznavids: Splendour and Decay; The Dynasty in Afghanistan and Northern India, 1040–1186*. New York, 1977.

—— "The Political and Dynastic History of the Iranian World", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle. Cambridge, 1968: 1–202.

—— *Islamic Dynasties: A Chronological and Genealogical Handbook*, Edinburgh, 1967.

Boyle, John Andrew. "The Attitude of the Thirteenth-Century Mongols Towards Nature", *Central Asiatic Journal* 22 (1978): 177–85.

—— "Dynastic and Political History of the Il Khāns", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle. Cambridge, 1968: 303–421.

—— "Kirakos of Ganjak on the Mongols", *Central Asiatic Journal* 8 (1963): 199–214.

—— "On the titles given in Juvaini to certain Mongolian princes", *Harvard Journal of Asiatic Studies* 19 (1956): 147–52.

Brend, Barbara. "The patronage of Faḫr ad-Dīn ʿAlī ibn al-Husain and the work of Kaluk ibn ʿAbd Allāh in the development of the decoration of portals in thirteenth century Anatolia", *Kunst des Orients* X1/2 (1975): 160–85.

Broom, Michael. "Early Post-reform dirhams of ʿAbd al-Malik", *Seeby's Coin and Metal Bulletin* 748 (1980): 374–7.

Brown, Helen Mitchel. "Some Reflections on the Figured Coinage of the Artuqids and Zengids", *Near Eastern Numismatics: Iconography, Epigraphy and History, Studies in Honor of George C. Miles*, ed. Dickran K. Kouymjian. Beirut, 1974.

Buell, Paul D. "Yeh-lü A-hai/Tʿu-hua", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*, eds Igor de Rachewiltz, Hsiao Chʿi-Chʿing, Hok-Lam Chan, Peter W. Geier, with assistance of May Yang. Asiatische Forschungen (series). Wiesbaden, 1993: 112–21.

—— "Chinqtai", *In the Service of the Khan, Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*, eds. Igor de Rachewiltz, Hsiao Chʿi Chʿing, Hok-Lam Chan, Peter W. Geier, with assistance of May Yang. Asiatishe Forschungen (series). Wiesbaden, 1993: 95–111.

—— "Early Mongol Expansion in Western Siberia and Turkestan (1207–1219): A Reconstruction", *Central Asiatic Journal* 24 (1991): 1–32.

—— "Sino–Khitan Administration in Mongol Bukhara", *Journal of Asian History* 13 (1979): 121–51.

Butcher, Kevin. "Coinage in Roman Syria: Northern Syria, 64 BC to AD 253", PhD diss, University of London. London, 1991.

Cahen, Claude. "Documents relatifs à quelques techniques Iraqiennes au début de onzième siècle", *Ars Islamica* XV–XVI (1951): 23–8.

Chapra, M. Umer. *Towards a Just Monetary System: A Discussion of Money, Banking and Monetary Policy in the Light of Islamic Teachings*. Leicester, 1405/1985.

Clauson, Gerard. *An Etymological Dictionary of Pre-Thirteenth Century Turkish*. Oxford, 1972.

Cleaves, Francis Woodman. "The Mongolian Documents in the Musée de Teheran", *Harvard Journal of Asiatic Studies* 16 (1953): 1–108.

Coins of the Islamic World in Gold, Silver and Copper: Auction 34. Spink Taisei Numismatics Ltd, Zürich (June 19, 1990): 18, 20.

Coppe, Stephen N. "The statistical analysis of coin weights by computer and a rationalized method for producing histograms", *The Numismatic Chronicle*, general series 140, series 7, 20 (1980): 178–89, 180–1.

al-Dafr, Ali A., and John J. Stroyls. "Pythagorean Theorems and Mumpsimus", *Studies in the Exact Sciences in Medieval Islam*. New York, 1984.

Daftar, Nahidah Abdul-Razzaq. "The ʿAbbasud Coinage of Madinat al-Salam from 146/763 to 218/833." PhD diss, The School of Oriental and African Studies, University of London. London, December 1978.

Daftary, Farhad. *The Ismaʿilis: Their History and Doctrines*. New York, 1990.

Daneshvari, Abbas. *Animal Symbolism in Warqa wa Gulshāh*. London, 1986.

Davidovitch, Elena A. *Denezhnoe Khozeq iaistvo srednei Azii posle mongol-skogo zavoevaniia i reforma Masʿud Beka (XIII V)* [The Monetary Economy of Central Asia after the Mongol Conquest and the Reform of Masʿud Bag in the Thirteenth Century]. Moscow, 1972.

Dawson, Christopher, ed. *The Mongol Mission*. London, 1935.

Deyell, John Scott. *Living Without Silver: The Monetary History of Early Medieval North India*. Delhi, 1990.
—— "Living Without Silver", PhD diss, University of Wisconsin. Madison, WI, 1982.
Doerfer, Gerhard. *Türkische und Mongolische Elemente im Neupersischen*. Wiesbaden, 1963.
D'Ohsson, Constantin Mouradgea. *L'Histoire des Mongols*. The Hague and Amsterdam, 1835.
Editorial. "Mrs. Thatcher and Emu". *The Financial Times*. 2 November 1990: 20.
Ehrenkreutz, Andrew S. "Contributions to the Knowledge of the Fiscal Administration of Egypt in the Middle Ages", *Bulletin of the School of Oriental and African Studies* 16 (1954): 502–14.
—— "Extracts from the Technical Manual on the Ayyubid Mint in Cairo", *Bulletin of the School of Oriental and African Studies* 15 (1953): 423–47.
Elisséeff, Nakita. "La titulature de Nūr ad-Dīn d'après ses inscriptions", *Bulletin d'Études Orientales* 14 (1952–4). Instituit Français de Damas. Damascus, 1954: 155–96.
Encyclopaedia of Islam, second edition (Leiden).
—— "Ahmadili".
—— "Arman Shah".
—— "Hurmuz".
—— "Ilek Khans" (1971).
—— "Ismāʿīliyya" by W. Madelung.
—— "Kara Khitay" by C. E. Bosworth (1973).
—— "Maragha" by V. Minorsky, first edition.
—— "Tabriz", first edition.
Endicott-West, Elizabeth. "The Yuan Government and Society", *The Alien Regimes and Border States, 907–1368*, Vol. 6, *The Cambridge History of China*. Cambridge, 1994: 587–615.
al-Fakhrī, Muḥammad ibn ʿAlī b., aka. Ibn al-Tiqṭaqā. *On the systems of government and the Moslem dynasties*, trans. C. E. J. Whiting. London, 1947; reprint, Westport, CT, 1981.
al-Farabī, Abū Nāṣr. *al-Farabī on The Perfect State: Abu Nasr al-Farabī's Mabadi' Ara' Ahl al-Madīna al-Faḍla*, trans. Richard Walzer. Oxford, 1985.
Fedorov, Michael. "Qarakhanid Coins of Tirmidh and Balkh as a Historical Source", *The Numismatic Chronicle* 163 (2003): 261–86.
—— "The Dzhalalabad horde of Qarakhanid dirhems (AD 1009–39) as a historical source", *The Numismatic Chronicle* 163 (2003): 361–76.
Fischel, J. "On the Iranian Paper Currency (Ch'ao) of the Mongol Period", *Journal of the Royal Asiatic Society* (1939): 701–3.
Foster, Richard. "The Westminster Abbey Sanctuary Pavement: A Study of Its History and Significance", PhD thesis, Royal College of Art: Visual Islamic and Traditional Arts. London, 1989.
Fraehn, M. *Moneti Khanov Ulusa Djuchieva ili Zolotoi Ordi* [Coins of the State of the Jochid Khans or the Golden Horde]. St Petersburg, 1832.
Gellens, Sam. *The ʿAbbasid Mint of al-ʿAbbasiya*. Summer Seminar Report, American Numismatic Society. New York, 1980.
al-Ghazalī Abū ḥamid Muḥammad al-ṭūāsī al-Shāfiʿi. *The Just Balance: al-Qustas al-Mustaqim*, trans. D. P. Brewster. Lahore, 1978.

Göyünç, Nejat. "Das sogenannte Gameʿo'l-HesĀb des ʿImĀd as-Sarāwī", PhD diss., Göttingen, 1962.
Grabar, Oleg and Blair, Sheila. *Epic Images and Contemporary History: The Illustrations of the Great Mongol Shahname*. Chicago, IL, 1980.
Grégoire, Henri. "The Byzantine Church", *Byzantium*. eds N. H. Baynes and H. St L. B. Moss. Oxford, 1948; reprint 1962.
Grigor of Akhanʿ. *History of the Nation of the Archers*. Harvard-Yen Ching Institute. Cambridge, MA, 1954.
Grunebaum, Gustav Edmund, von. *Muhammadan Festivals*. London, 1951; reprint, 1981.
Guseeq inov, R. A. "Izisorii Denezhnogo obrashchenifa v Perednei Azii v XI–XII vv" [About the History of Monetary Relations in Central Asia in the Eleventh–Twelfth Centuries]. *Numizmatika i Epigrafika* 9 (1971): 103–14.
al-Hamadānī, Abū Muḥammadī ḥasan b. Aḥmad. *Kitāb al-Jawharatayn al-ʿAtiqatayn al-Maʿiatayn min al-Safrā wa'l-Bayā*, ed. and Trans. Christopher Toll. Upsala, 1968.
Hamdani, ʿAbbas. "Evolution of the Organisational Structure of the Faeq timi Daʿwah: The Yemeni and Persian Contributions", *Arabian Studies* 2 (1976): 85–114.
Hangen, Gombojab with John R. Krueger, Paul D. Buell, William V. Rozycki and Robert G. Service. *A Modern Mongolian–English Dictionary*. Uralic and Altaic Series, Vol. 150. Indiana University: Research Institute for Inner Asian Studies. Bloomington, IN, 1988.
Hannon, Brian. "Eine Münze des Tschinghiz Khan", *Münster Numismatische Zeitung* (*Holger Dombrowski Münzenhandlung*) Lagerkatalog 59 (June, 1974): 7.
Hansman, John. "Coins and Mints of the Ancient Elymais", *Iran* XXVIII (1990): 1–12, plates I and II.
Harper, Prudence O. and Meyers, Pieter. *Royal Imagery*. Vol. 1, *Silver Vessels of the Sasanian Period*. New York, 1981.
Heidemann, Stefan. *Das Aleppiner Kalifat (A.D. 1261): Vom Untergang des Kalifates in Bagdad über Aleppo zu den Restaurationen in Kairo*. Islamic History and Civilization: Studies and Texts 6. Leiden, 1994.
Hill, G. F. "The Frequency-Table", *The Numismatic Chronicle*, series 5 (1924): 76–85.
Hinz, Walther. *Islamisches Masse und Gewichte*. Second edition. Leiden, 1970.
—— "Steurinschriften aus dem mittelalterlichen vorderen Orient", *Belleten* (Ankara) XII (1949): 745–69.
Hodgson, M. G. S. "The Ismaʿili State", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*. Cambridge, 1968: 422–82.
Hourani, George F. *Reason and Tradition in Islamic Ethics*. Cambridge, 1985.
—— *Islamic Rationalism: The Ethics of ʿAbd al-Jabar*. Oxford, 1971.
Howgego, Christopher J. "Why did ancient states strike coins?", *The Numismatic Chronicle* 150 (1990): 1–25.
Howorth, Henry H. *History of the Mongols: From the Ninth to the Nineteenth Century*. Part III, *The Mongols of Persia*. London, 1888; reprint, New York, 1965.
Humphreys, R. Stephen. *From Saladin to the Mongols: The Ayyubids of Damascus, 1193–1260*. Albany, 1977.
Ibn al-Athīr, ʿIzz al-Dīn. *al-Kāmil fī al-Tarīkh*. Vol. 12. Leiden, 1853; reprint, Beirut, 1966.
Ibn Baʿra al-Dhahabī al-Kāmalī Manṣūr. *Kashf al-Asrār al-ʿIlmiya bi Dār al-Ḍarb al-Miṣriya* [Disclosing the Scientific Secrets of the Egyptian Mint], ed. ʿAbd al-Raḥman Fahmī. Cairo, 1385/1966.

Ibn Faḍl Allāh al-ʿUmarī, Aḥmad b. Yaḥya. *Masālik al-Abṣār fī Mamālik al-Amṣār*. Beirut, 1407/1986. Translation (translator unknown) in Vol. 13, *Notices et extraits des manuscrits de la Bibliothèque du Roi*. Académie des Inscriptions et Belles-Lettres. Paris, 1833: 151–384.

Ibn al-Fuwāṭ, ʿAbd al-Razzāq b. Aḥmad. *al-Hawādith al-Jamiʿa wa'l-Tajārib al-Nāfiʿa fī'l Miʾa al-Sabiʿa*. Baghdad, 1351/1932.

Ibn al-Ukhuwwa, Muḥammad b. Muḥammad b. Aḥmad. *Maʿālim al-Qurba fī Ahkam al-Ḥisba*. ed. Reuben Levy. London, 1938.

Ilisch, Ludger. "Geschichte der Artuqidenherrschaft von Mardin zwischen Mamluken und Mongolen, 1260–1410 AD", PhD diss, University of Münster. Münster, 1984.

—— "Die Münzprägung der Goldenen Horde", *Münster Numismatische Zeitung (Holger Dombrowski Münzenhandlung)* Laberkatalog 51 (February, 1973): 3–5, plates.

—— "Ein Dirhamfund des Frühen 10. Jahrhunderts aus der Gegend von Diyarbakir", *Münster Numismatische Zeitung (Holger Dombrowski Münzenhandlung)* Intermünz Kurier 83 (March, 1979): vii–xiv, plates.

Jackson, Peter. "Jalal al-Din, the Mongols and the Khwarazmian Conquest of the Panjab and Sind", *Iran* XXVIII (1990): 45–54.

—— "The Dissolution of the Mongol Empire", *Central Asiatic Journal* 22 (1978): 186–244.

Jahn, Karl. "Das irānische Papiergeld: Ein Beitrag zur Kultur- und Wirtschaftsgeschichte Irāns in der Mongolzeit", *Archiv Orientalni* X (1938): 308–40.

Juvainī, ʿAla al-Dīn ʿAtā-Malik. *Genghis Khan: The History of the World-Conqueror*, trans. John Andrew Boyle. Manchester, 1958; reprint, 1977.

Juzjānī, Minjāj Surāj. *Tabaḳat-i Nāṣirī*, trans. H. G. Raverty. Calcutta, 1881; reprint, New Delhi, 1970, and Lahore, 1977. Page numbers from 1 through 720 will be found in the Lahore reprint. All others are in the New Delhi volume.

Kaczmarczyk, A., and Helen Brown. "On the Occurrence of Mercury-Coated Dirhams", *The Numismatic Chronicle*, general series 137, series 7, 17 (1977): 162–70.

al-Karkhī, Abū Bekr Moḥammed ben Alḥusein. *Kāfī fī'l Ḥisāb*, trans. Adolf Hochheim. Halle, 1878.

Kazwīnī, Hamdullah Mustawfī. *Nuzhat al-Kulāb*, trans. Guy Le Strange. E. J. W. Gibb Memorial Series, XXIII: ii. London, 1949.

Kempiners, Russell George, Jr. "The Struggle for Khurasan: Aspects of Political, Military and Socio-Economic Interaction in the Early 8th/14th Century", PhD diss, University of Chicago. Chicago, IL, 1985.

Kennedy, Edward S. "The Exact Sciences in Iran under the Saljuqs and Mongols", *The Saljuq and Mongol Periods*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle. Cambridge, 1968; 659–79.

Khadduri, Majod. *The Islamic Conception of Justice*. Baltimore, MD, 1984.

Khanikoff, N. "Analysis and Extracts of 'Book of the Balance of Wisdom'", *Journal of the American Oriental Society* 3 (1860): 1–128, translation of al-Khazini's treatise.

al-Khazinī, ʿAbd al-Raḥmān. *Kitāb Mizān al-ḥikma*. Hyderabad, DN, 1359/1940.

Klausner, Carla L. *The Seljuk Vezirate: A Study of Civil Administration, 1055–1194*. Harvard Middle Eastern Monographs XXII. Cambridge, MA, 1973.

Kolbas, Judith G. "Developments in Jaziran Pictorial Coinage", *The Numismatic Chronicle* 158 (1998): 259–85.

—— "Mongol Money, The Role of Tabriz from Chingiz Khan to Uljaytu: 616 to 709 H/ 1220 to 1309 AD", PhD diss, New York University. New York, 1992.

—— "The Sar-i Pol Hoard. (Ashmolean Museum)", Paper to the Tenth International Numismatic Congress. London, 1986.

Komoroff, Linda and Carboni, Stefano, eds. *The Legacy of Genghis Khan: Courtly Art and Culture in Western Asia, 1256–1353*. London, 2003.

Kouymjian, Dikran. "Three unique gold coins of the Eldigizid Atabags of Northwestern Iran", *Actes du 8ème Congrès International de Numismatique*. New York/Washington, DC, September 1973. Paris/Basle, 1976: 357.

—— "A Numismatic History of Southwestern Caucasia and Adharbayjan Based on the Islamic Coinage of the 5th/11th to the 7th/13th Century", PhD diss, Columbia University. New York, 1969.

Kraemer, Joel L. *Philosophy in the Renaissance of Islam: Abu Sulayman al-Sijistānī and his Circle*. London, 1986.

Lambton, A. K. S. "Justice in the medieval Persian theory of kingship", *Studia Islamica* 17 (1962): 91–120.

—— "Mongol Fiscal Administration in Persia", *Studia Islamica* 64 (1986): 79–99.

Lane, George. *Early Mongol Rule in Thirteenth Century Iran: A Persian Renaissance*. London, 2003.

Lane-Poole, Stanley. *Catalogue of Oriental Coins in the British Museum*, Vol. 2, "The Coins of the Mohammadan Dynasties" (1876); Vol. 4, "The Coinage of Egypt (AH 358–922)" (1879); Vol. 6, "The Coins of the Mongols" (1881); Vol. 10, "Additions to the Oriental Collection 1876–1888" (1890). London.

Lang, David M. *Studies in the Numismatic History of Georgia in Transcaucasia*. Numismatic Notes and Monographs No. 130. New York, 1955.

Larsson, Axel O. "En mongolisk Silverskatt", *Myntkontakt* 8 (1980): 156–9.

Le Strange, Guy. *Lands of the Eastern Caliphate*. Cambridge, 1930.

Levey, Martin. "Medieval Arabic Minting of Gold and Silver Coins", *Chymia* 12 (1967): 3–14.

Lindner, Rudi Paul. "Hordes and Hoards in Late Saljuq Anatolia", *The Art of the Saljūqs in Iran and Anatolia*, ed. R. Hillenbrand. Costa Mesa, CA, 1994: 278–85.

—— "The Challenge of Qilich Arslan IV", *Near Eastern Numismatics: Iconography, Epigraphy and History*, Studies in Honor of George C. Miles, ed. Dickran K. Kouymjian. Beirut, 1974: 411–18.

Lister, R. P. *Genghis Khan*. New York, 1969.

Longworth-Dames, M. "The mint of Karramān with special reference to the coins of the Qarlughs and Khwārazm-Shāhs", *Journal of the Royal Asiatic Society* 1 (1908): 389–409.

Lowick, Nicholas M. "The Religious, the Royal and the Popular in the Figural Coinage of the Jazira", *The Art of Syria and the Jazira*, ed. Julian Raby. Oxford Studies in Islamic Art I. Oxford, 1985: 159–74.

—— "Further Unpublished Islamic Coins of the Persian Gulf", *Studia Iranica: Mélanges Offerts à Raoul Curiel* II (1982): 247–61.

—— "Trade Patterns on the Persian Gulf in Light of Recent Coin Evidence", *Near Eastern Numismatics: Iconography, Epigraphy and History*, Studies in Honor of George C. Miles, ed. Dickran K. Kouymjian. Beirut, 1974: 319–33.

—— "Saljuq Coins", *The Numismatic Chronicle*, seventh series, 10 (1970): 241–51.

Makari, Victor E. *Ibn Taymiyyah's Ethics: The Social Factor*, American Academy of Religion Series 34. Chico, CA, 1983.

al-Maqrīzī, Taqī al-Dīn Abū Muḥammad b. Ibrahīm b. Muḥammad b. Tamīm. *Shudhūr al-ʿUqūd fī Dhikr al-Nuqūd*:
(1) Ed. Bahr al-ʿUlūm, al-Sayyid Muḥammad al-Sadīq as *al-Nuqūd al-Islamiyya*. Najaf, 1967.
(2) Ed. and trans. Daniel Eustache. "'Les perles des colliers' ou 'Traité des Monnaies.' Études de numismatique et de métrologie musulmanes. II", *Hesperis Tamuda* 10 (1969): 96–189.
(3) Trans. A. J. Sylvestre de Sacy. "Traité des monnais musulmanes", *Magasin Encyclopédique*. 1797. Vol. 6, IIe année, 472–507; Vol. 1, IIIe année, 38–9. (4) Reprint, "Traité des monnaies musulmanes", *Bibliothéque des Arabisants français*. L'Institut français d'archéologie orientale. Cairo, 1905.
Martinez, A. Peter. "Regional Mint Outputs and the Dynamics of Bullion Flows through the Il-xanate", *Turks, Hungarians and Kipchaks: A Festschrift in Honor of Tibur Halasi-Kun. Journal of Turkish Studies/Türklük Biligisi Araeq stirmalari* 8 (1984): 121–75.
—— "International Trade Cycles: Bullion Transfers and Economic Policy in Mongol Western Asia", PhD diss, Columbia University. New York, 1975.
Mayer, Tobias, ed. *Syllogae Numorum Arabicorum Tubingen: Nord-und Ost Zentralischen XVb Mittelasien II*. Berlin, 1998.
al-Māzandarānī, ʿAbd Allah b. Muḥammad b. Kiyā. *Die resālā-ye falakiyyā: Ein persischer Leitfäden des staatlichen Rechnungswesens (um 1363)*, ed. Walther Hinz. Wiesbaden, 1952.
Melville, Charles. "The Chinese–Uighur Animal Calendar in Persian Historiography of the Mongol Period", *Iran* XXXII (1994): 83–98.
—— "The Itineraries of Sultan Öljeitu, 1304–16", *Iran* 28 (1990): 55–70.
—— "*Padshah-i Islām*: The Conversion of Sultan Maḥmud Ghāzān Khān", *Pembroke Papers* 1 (1990): 159–77.
Metcalf, D. M. and Oudy, W. A., eds, *Metallurgy in Numismatics*. The Royal Numismatic Society Special Publication Series, Vol. 1, No. 13; Vol. 2, No. 19. London, 1980; 1988.
Michner, Michael. "Multiple Dirhams of the Saminid–Ghaznavid Period from North-East Afghanistan", *Information Sheet* No. 5 (August, 1973). Oriental Numismatic Society (London): 1–13, with plates.
Miles, George C. "Coins of the Assassins of Alamūt", *Orientalia Lovaniensia Periodica* 3 (1972): 155–62.
—— "Byzantine Milliaresion and Arab Dirhem: Some Notes on Their Relationship", *Museum Notes* 9. New York, 1960.
—— *The Numismatic History of Rayy*, Numismatic Studies No. 2. New York: American Numismatic Society, 1958.
—— "Some Coins from Sinjār", *The American Journal of Semitic Languages and Literatures* 56 (1939): 244–56.
Minorsky, V. "Mongol Place-names in Mukri Kurdistan", Minorsky Offprints Series, Mongolica, 4. Reprinted from *Bulletin of the School of Oriental and African Studies*, 1957.
—— *Studies in Caucasian History*, Vol. I, *New Light on the Shaddādids of Ganja (A.D. 951–1075)*; Vol. II: *The Shaddādids of Ani*: Vol. III: *Pre-history of Saaladin*. London, 1953.
Minovi, M. and Minorsky, V. "Nāṣr al-Dīn Tusī on Finance", *Bulletin of the School of Oriental and African Studies* 10 (1939–42): 755–89.
Miskawayī, Abī ʿAlī Aḥmad ibn. *Kitāb al-Fawz al-Asghār al-Hayyāt*. Reprint, Beirut, 1980s.
—— *An Unpublished Treatise of Miskawaih on Justice or Risāla fī Māhiyat al-ʿAdl li Miskawaih*, ed. and trans. M. S. Khan. Leiden, 1964.
The Mongols. Men-at-Arms Series, No. 105. London, 1980.
Morgan, David O. *The Mongols*. Oxford, 1986.
—— "The 'Great Yāsā of Chingiz Khan' and Mongol Law in the Ilkhānate", *Bulletin of the School of Oriental and African Studies* 49 (1986): 163–76.
—— "Who ran the Mongol Empire?" *Journal of the Royal Asiatic Society* (1982): 124–36.
—— "The Mongol Armies in Persia", *Der Islam* 61 (1979): 81–96.
Morrisson, Cecil, Barrandon, Jean-Noel and Brenot, Claude. "Composition and Technology of Ancient and Medieval Coinages: A Reassessment of Analytical Results", *Museum Notes* 32 (1987): 181–209.
Morton, Alexander H. *A Catalogue of Early Islamic Glass Stamps in the British Museum*. London, 1985.
—— "Ghurid Gold on Route to England?" *Iran* 16 (1978): 167–70.
Morton, Alexander H. and Album, Stephen. *Coin Hoards*, Vol. 3 (1977), Nos 269 and 270: 101.
Nabipour, Mirkamal. "Die beiden persischen Leitfäden des falak ʿAla-ye Tabrīzī über das staatliche Rechnungswesen im 14. jahrhundert", PhD diss, University of Göttingen. Göttingen, 1973.
Nakano, Miyoko. *A Phonological Study in the 'Phags-pa Lama Script and the Meng-ku tzu yün*. Canberra, 1971.
Nebehay, Stefan. "Zur ältereni Il Hānidischen Silber Prägung in Mārdīn", *Litterae Numismaticae Vindobonenses* 3 (1987): 253–63.
Nicol, Norman D. "The Coinage of the Ayyubids: Additions and Corrections", *The Numismatic Chronicle* 145 (1986): 119–34.
Ostrowski, Donald. *Muscovy and the Mongols: Cross-cultural Influences on the Steppe Frontier, 1304–1589*. Cambridge, 1998.
—— "The Tamma and the Dual Administrative Structure of the Mongol Empire", *Bulletin of the School of Oriental and African Studies* 61 (1980): 262–77.
Pakhamov, E. A. *Moneti Gruzhia*. Tiflis [Tiblish], 1970, trans. M. Bartlett Wells as *The Coins of Georgia*. Typescript in the Department of Coins and Medals, the British Museum, London.
Pegolotti, Balducci. *La pratica della mercatura*, ed. Allan Evans. Cambridge, MA, 1937.
Pelliot, Paul. "Récherches sur les Chrétiens d'Asie Centrale et d'Extrème-Orient", *Ouvres posthume de Paul Pelliot* IV. Paris, 1973.
Petrushevsky, I. P. "The Socio-Economic Conditions of Iran under the Īl Khāns", *The Saljuq and Mongol Period*, Vol. 5, *The Cambridge History of Iran*, ed. John A. Boyle. Cambridge, 1968: 483–537.
Pfeiler, Hasso. "Die Münzprägung Kilitsch Arslan IV im Jahre 1248/49 in Sivas", *Schweizer Münzblätter (Gazette Numismatique Suisse)* 28 (1973): 64–72.
Phillips, E. D. *The Mongols*. London, 1969.
Plant, Richard J. "The Urtuqids of Mardin", *Numismatics International* 12 (1978): 242–7.
Polo, Marco. *The Travels of Marco Polo*, trans. Teresa Waugh. London, 1984.
Poppe, Nicholas, trans and Krueger, John R. ed. *The Mongolian monuements in 'Phags-pa script*. Wiesbaden, 1957.

Qāḍī Ahmad ibn Mīr-Munshī al Husayni, *Gulistāni-i Hunar* (Treatise on Calligraphers), trans. V.I. Minorsky, *Calligraphers and Painters*, Freer Gallery of Art Occasional Papers (Washington, DC, 1959).

al-Qalqashandī, ʿAlī. *Subh al-Aʿshā fī Sināʿat al-Inshā*. Cairo: al-Maṭbaʿat al-Amiriyat, 1913–22.

Qazwīnī, Mīrzā Muḥammad, ed. *Tarīkh-i Jahān Gushā*, 3 vols. London, 1912, 1916, 1937.

Rabino, H. L. *Mazandarān and Astarābād*. E. J. W. Gibb Memorial Series, new series. VII. London, 1928.

de Rachewiltz, Igor. "The title Chinggis Qan/Qagan Re-examined." *Festschrift zum 90. Geburtstag von Nikolaus Poppe*. Wiesbaden, 1989: 281–98.

—— "Qan, Qa'an and the Seal of Güyüg", *Documenta Barbarorum: Festschrift für Walter Heisig zum 70. Geburtstag*. Wiesbaden, 1983: 272–81.

—— *Papal Envoys to the Great Khans*. London, 1971.

—— "The Poems of Chʿu-Tsʿai", *Monumenta Serica: Journal of Oriental Studies of the Catholic University of Peking* (1962): 1–28.

Rashīd al-Dīn, Fadlāllāh. *Jāmiʿ al-Tawarīkh*,
(1) Ed. Karl Jahn. E. J. W. Gibb Memorial Series, new series XIV. London, 1940.
(2) Ed. Amīr Husayn Jahānbaglū. Isfahān, 1336/1958.
(3) Ed. and trans. A. K. Arends as *Tārīkh-i Mubārak-i Ghāzān, Dāsān-i Ghāzān Khān*. Baku, 1957.

Ratchnevsky, P. "Shigi Qutuqu", *In the Service of the Khan: Eminent Personalities of the Early Mongol–Yüan Period (1200–1300)*. eds Igor de Rachewiltz, Hsiao Chʿi-Chʿing, Hok-Lam Chan, Peter W. Geier, with assistance of May Yang. Asiatische Forschungen (series). Wiesbaden, 1993: 75–94.

Remler, Philip. "New Light on Economic History from Ilkhanid Accounting Manuals", *Studia Iranica* XIV (1985): 157–77.

—— "Ottoman, Isfendiyard, and Eretnid Coinage: a Currency Community in Fourteenth Century Anatolia", *Museum Notes 25*. (1980): 167–88.

Rhodes, Nicholas. "Coinage of the Mi-nyag, Tangut people, the Xi Xia Dynasty", *The Numismatic Chronicle* 162 (2002): 315–32.

Rogers, E. T. "Glass as a material for standard coin weights and measures", *The Numismatic Chronicle*, new series, 13 (1873): 66–88.

Rossabi, Morris. "The Reign of Khubilai Khan", *Alien Regimes and Border States, 907–1368*, Vol. 6, *The Cambridge History of China*. Cambridge, 1994: 414–89.

—— *Khubilai Khan: His Life and Times*. Berkeley, CA, 1988.

Ruysbroeck, Willem van. *The Mission of William of Rubruck: His Journey to the Court of the Great Khan Möngke 1253–1255*, trans. Peter Jackson. The Hakluyt Society, second series, No. 173. London, 1990.

Saunders, J. J. *The History of the Mongol Conquests*. London, 1971.

Sauvaire, M. H. "Materiaux pour servir à l'histoire de la numismatique et de la métrologie musulmanes", *Journal Asiatique*, Series 8, Vol. 3 (1881, 1882); Vol. 4 (1884).

Sayles, Wayne. "Historical event inspired Turkoman coin type", *Celator* 3.5 (1989): front page, ff.

Scanlon, George T. "A Muslim Manual of War", PhD diss, Princeton University. Princeton, NJ, 1960.

Schabas, B. "Alfred Marshall, W. Stanley Jevons, and the Mathematization of Economics", *ISIS* 80 (1989): 60–73.

Schacht, Joseph, ed. with Bosworth, C. E. *The Legacy of Islam*, second edition. Oxford, 1974.

Schwarz, H. "Otrar Revisited", *Essays on Mongol Studies: Commemorative Volume to the 70th Year Birthday of Academician Sh. Bira*. Ulaan Baatar, 1998: 195–208.

The Secret History of the Mongols, trans. Francis Woodman Cleaves. Cambridge, MA, 1982.

Seifeddini, M.A. *Monotoe delo I denedznoe obrasheniye [dz] b Azerbaidzane, xii–xv b.b.* [Coinage Affarrs and Monetary Circulation in Azerbayjan in the XII–XV Centuries]. Vol. 2. Baku, 1981.

al-Shayzānī, ʿAbd al-Raḥmān b. Nāṣr. *Kitāb Nihāyat al-Rutba fī Talab al-Ḥisba*, ed. al-Bāz al-ʿArini. Cairo, 1365/1946.

Schultz, Warren G. "Mamluk Monetary History. A Review Essay", *Mamluk Studies Review* III (1999): 183–205.

Silver, Morris. *Economic Structures of the Ancient Near East*. London, 1985.

Smith, G. Rex. *Medieval Muslim Horsemanship: A Fourteenth Century Arabic Cavalry Manual*. London, 1979.

Smith, John Mason, Jr. "Coinage Systems and Monetary Traditions in Mongol Iran". Typescript, early 1970s, 19 pp.

—— "The Silver Currency of Mongol Iran", *The Journal of the Economic and Social History of the Orient* XII (1969): 16–41.

Smith, John Mason, Jr. and Plunkett, F. "Gold Money in Mongol Iran", *The Journal of the Economic and Social History of the Orient* XI (1968): 275–97.

Spuler, Bertold. *History of the Mongols: Based on Eastern and Western Accounts of the Thirteenth and Fourteenth Centuries*, trans. Helga and Stuart Drummond. Berkeley, CA, 1972.

Staak, Herbert. *Die Loch Münzen chinas*. Berlin, 1988.

Storey, C. A. *Persian Literature: a Bio-Bibliographical Survey*, Vol. 1. London, 1970.

Street, John Charles. *The Language of the Secret History of the Mongols*. New Haven, CT, 1957.

Tabātabāʾī, Sayyid Jamāl Torābī. "Various Coins of Abaghakhan of the Ilkhan Dynasty", *Bar-Rasiha-yi Tarikhi* 55 (Teheran, 1975): 177–86.

—— *Rasnu'l-Khatt Ighārī wa-Sairi dar sikke Shināsīi* [Uighur Orthography and Other Numismatic Varia]. Tabriz: Azārbayjan Museum, Publication No. 6, 1932–3.

Tadhkirat al-Mulūk: A Manual of Safavid Administration, ed. V. Minorsky. E. J. W. Gibb Memorial Series. London, 1943; reprint, Cambridge, 1980.

Tapsell, R. F., comp. *Monarchs, Rulers, Dynasties, and Kingdoms of the World*. New York, 1983.

Turan, Osman. "Le droit terrein sous les Seldjoukides de Turque: terre dominiales et diverse formes de propriété privée", *Révue des Islamiques* (1948): 25–49.

Tūsī, Nāṣr [Nāṣr] al-Dīn. *The Nasirean Ethics by Nasir al-Din Tusi*, trans. G. M. Wickens. London, 1965.

al-ʿUmarī. See Ibn Faḍl Allāh al-ʿUmarī, Aḥmad b. Yaḥya.

al-ʿUsh, Muḥammad Abū'l-Faraj. *al-Nuqūd al-ʿArabiya al-Islāmiya al-maḍruba fī mudun sharqi al-Jazīra al-ʿArabiya* [Arab Islamic Coins Struck in the Mints of Eastern Arabia]. Papers presented to the Historical Studies Conference on Eastern Arabia. March 21–28, 1976. Vol. 1. Doha, Qatar, 1976: 287–329.

Validi, Ahmet-Zeki. "Mogollar Devrinde Anadolu'nun Iktisadī Vaziyeti", *Türk Hukuk ve Iktisat Tarihi Mecmuasi* 1 (1931): 1–42.

BIBLIOGRAPHY

Vermeulen, U. "Une note sureles insignes royaux des Mameloukes", *Egypt and Syria in the Fatimid, Ayyubid and Mamluk years. Proceedings of the first, second and third international colloquium* (1992, 1993 and 1994), *Orientalia Lovaniensia Aalecta* 73 (1995): 355–61.

Waṣṣāf al-Hadrat, ʿAbd Allāh b. Faḍl Allāh. *Tajziyat al-Amsār va Tazjiyat al-Aʿsār: Muqāṭaʿa-i Fārs va Turān: Kiāb-i Mustatāb-i Waṣṣāf* [A History of the Mongols of Persia and Turkestan], ed. ʿAbd al-Raḥman Ayammī. Lithograph edition. Bombay, 1853.

Watson, Andrew. "Back to Gold and Silver", *Economic History Review*, second series 10 (1967): 1–34.

Watt, J. and Wardell, A. *When Silk was Gold: Central Asian and Chinese Textiles*. New York, 1997.

Welch, Stuart Carey, ed. *Treasures of Islam*. Geneva and London, 1985.

Whelan, Estelle J. "The Origins of the Miḥrāb Mujawwaf: A Reinterpretation", *International Journal of the Middle East* 18 (1986): 205–23.

—— "A Contribution to Danishmendid History: The Figured Copper Coins", *Museum Notes* 25 (1980): 133–66.

—— "The Public Figure: Political Iconography in Medieval Mesopotamia", PhD diss. New York University. New York, 1979.

Wise, Edmund, ed. *Gold: Recovery, Properties and Applications*. New York, 1964.

Yadegari, Mohammad, and Martin Levy. "Abū Kāmil's 'On the Pentagon and Decagon'", *Japanese Studies in the History of Science* (Tokyo), supplement 2 (1971): 1–54.

Yakubovsky, A. Yu. "Dve nadpisi na severnom mavsolei 1252 g.v. Uzgende" [Two Inscriptions in the Northern Mausoleum of 1252 in Uzgende]. *Epigrafica Vostoka* 1 (1947): 27–32.

Zambauer, Edward Karl Max, von. *Die Münzprägungen des Islams*. Reprint ed. Peter Jaeckel. Wiesbaden, 1968.

—— *Manuel de genealogie et de chronologie pour l'histoire de l'Islam*. Hanover, 1927.

INDEX

Abaqa, 22–3, 26, 126, 163, 170–1, 174–6, 178, 180–2, 189, 194–8, 202, 205–7, 211–16, 218, 223, 226–30, 233, 235–8, 240, 243, 246–9, 252–3, 257, 270, 276, 271, 273, 274, 286, 321, 329, 336, 349, 378, 381, 382, 385, 388; Abaqa Khan, 68, 154, 381, 388
ʿAbbasid(s), 15, 22, 30, 34–5, 91, 107, 113, 120, 132, 154, 156, 161, 166, 231, 245, 310–11
ʿAbd al-Malik b. Marwan (caliph), 13
ʿAbd al-Rahim al-Khazini; *see* al-Khazini
ʿAbd al-Razzaq, 328, 371
Abhar, 283
Abish (Salgurid ruler), 24, 169, 170, 207, 249, 381
Abiward, 130, 267, 347
Abu Bakr (caliph), 356
Abu Bakr (Masʿud's son), 101
Abu Bakr (Salgurid ruler), 169, 170, 353
Abu Ishaq, 259, 285, 302, 306–7, 351–2, 373
Abu Saʿīd (khan), 233, 358, 367–9, 381, 384
Adharbayjan, 4, 77–8, 80–2, 84, 86, 90–1, 97, 102–3, 105, 107, 109–10, 114–15, 119–21, 123, 130–1, 133–6, 144, 147, 150–2, 155, 159–60, 165, 203–4, 208, 212, 231, 239, 247–9, 298, 333, 353, 355, 369, 377–9, 383–8, 397
al-ʿādil al-āʿẓam Chingiz Khān, 12, 46, 51, 54
ʿadl, 50, 55, 61, 203, 213; *ʿAdl* (coinage), 28, 49, 50, 52–9, 63, 67, 73, 109, 148, 179, 259
ʿAdlilya (coinage), 259
Afghanistan, ix, 71, 73, 230, 381, 383
Afrasiab (citadel of Samarqand), 66
Afrasiyab (ruler of Luristan), 322, 344
A-hai, 32–6, 38–41, 45–6, 58, 62–3, 66–9, 92, 100, 381, 389; *see* Yeu-lü A-hai
Ahar, 84, 110–11, 120, 187
Ahmad (khan), 27, 41, 71, 233, 236–7, 239, 274, 294, 371; *see* Tegudar
Ahmadili b Ibrahim (Ahmadili ruler), 81
Ahmadili(s), 80–1, 86
Akhalsikh, 339
Akhlat, 80–1, 84, 90, 339, 362, 384; Battle of, 84, 90, 384; *see* Khilat
ʿAla al-Din Muhammad (Ismaʿili ruler), 150, 156
ʿAla al-Din Muhammad (Khwarazmshah), 31, 36, 39–40, 69–71, 76–7, 89, 381, 384
Ala Tagh, 162, 330, 362
Alamut, 150, 155
Alburz Mountains, 294; *see* Elburz Mountains
Aleppo, 85, 112, 120–2, 127, 187
Alexander (the Great), x, xiii, 3, 12–13, 21, 29, 86
Alghu (Chaghadaid ruler), 101
āllāh (coinage), 104, 109, 199, 231, 371
Almaligh, 75, 87, 102, 149; *see* Almaliq
Almaliq, 101
Alp Arslan (Great Saljuq ruler), 106, 119
Altan Qan (Chin Emperor), 49
ʿAmara-hā-Bow (coinage), 122
Amid, 34, 84, 335, 339–40, 342–3, 384; *see* Diyarbakr
Amu Darya River, 36, 46; *see* Oxus River
Amul (River), 76, 130, 333–5, 362

Anatolia, 3, 13, 30, 113, 121–2, 126–7, 134, 137–8, 141–2, 179, 231, 247, 263, 265, 283, 298–9, 320, 327, 330, 337–8, 342, 353, 358, 362–8, 377–9, 382, 385, 388; Anatolian, 113, 134, 137, 141, 179, 320, 338, 363, 365–6, 378–9
Ani, 80, 247, 249, 338–40
animal, 4, 5, 7, 15, 28, 43, 91, 97, 108, 125–7, 132, 241, 259–62, 268, 283, 300, 308; animal mints, 260
aqa, 182; *see* Arghun Aqa
aqche, 263, 314
Aral Sea, 32, 69, 88, 381
Aras River, 112, 130; Kur-Aras, 112, 130, 135
archer, 106, 124–8, 132, 136, 184; *see* mounted archer
Ardabil, 80, 82–5, 102, 104, 105, 111–12, 119, 152, 323, 327, 389
Arghun (Aqa), 100, 102, 114–15, 121–8, 131–5, 137, 139, 142–9, 151, 153–5, 159, 163–7, 170, 179–85, 194–7, 199, 200–1, 207–8, 211, 227, 295
Arghun (khan), 22–3, 68, 231, 240–2, 250–4, 256, 260, 264–78, 280–2, 285–94, 297, 299, 301, 303, 305, 307, 314, 327, 329, 336, 339, 349, 352, 355, 358, 366, 369, 373, 377–9, 381–2, 385–9
Ariq Buqa (khan), 101, 293, 382, 384–6
Aristotle, 3, 4, 5, 7, 8, 9, 11, 16, 25, 29; Aristotelian, 9, 10, 13, 109, 257; Aristotelian ethics, 10
Arjish, 80, 339–40, 362–3
Armanshah(s), 80–1
Armenia, ix, 25, 30, 80–1, 91, 106, 113, 116, 121, 182, 241, 338, 362; *see* Irmeniya; Armenian(s), 25, 80–1, 106, 113, 116, 182, 241, 338; Cilician Armenia, 30, 182; Cilician Armenians, 25
Arran, 22, 28, 77–8, 82, 90, 102, 105, 107, 109, 114–15, 124, 127, 133–5, 138, 140, 143, 151, 159, 165, 203–4, 295, 238–9, 333–7, 342, 353, 355, 362–3, 372; Arrani, 124, 138, 204, 333, 335–7, 351; Greater Arran, 333–6, 353, 362–3, 372
arrow (as symbol), 106, 119, 126, 137, 184
Artuqid(s), 28, 84–5, 91, 112–14, 124, 126, 131, 168, 184, 199, 205, 265, 321–2, 337, 342, 386
Aruq (governor of Baghdad), 245, 273, 382
Arslan (Qara Khanid ruler), 45, 71, 80, 106, 119, 137–8, 157, 177, 184, 187, 388
Arzan al-Rum, 80, 113, 122, 137, 333, 337–9, 341, 353–4, 364, 388; *see* Erzerum
Arzanjan, 297–9, 302, 327, 330, 335, 337, 338, 364, 371
asper(s), 144
Assassin(s), 155, 186; *see* Isma'ili(s)
Astarabad, 26, 38, 39, 41, 59, 65, 70, 75, 92, 95–6, 130, 148–9, 164, 166, 207, 224–6, 248, 250, 253–4, 262, 265–70, 277, 282–3, 303, 346, 348
'Ata Malik Juvayni, 10, 92, 117, 167, 215, 243, 349, 385; *see* Juvayni
'Ayn Jalut, 187
Ayyubid(s), 38, 79, 81–3, 85–6, 91, 112–13, 120–2, 154, 168, 178, 182, 277
Azerbayjan, ix; *see* Adharbayjan

Badakhshan, 34, 36–9, 41, 61
Badr al-Din Lu'lu', 122, 124, 156, 165, 188; *see* Lu'lu'
Bagdhis, 195
Baghdad, x, 22, 27, 40, 78, 85, 113, 117, 120, 132, 155–7, 160–2, 166–8, 170, 172, 174–7, 179–80, 187–8, 196–200, 206–10, 213, 216–18, 224, 228, 231–2, 236, 241–3, 247–50, 256, 264, 273, 276–82, 287, 290–1, 296–8, 302, 311, 321, 324–5, 328–33, 335–6, 340, 342, 348–53, 358–62, 367–8, 371, 373–4, 378–9, 382, 384–7; Baghdadi, 156, 158, 179, 187, 200, 202, 208, 216, 228, 267, 281, 285, 298, 324, 330, 336, 340
Baghlan, 53, 60–1, 67
Bagratid(s), 80–1, 83, 91, 102, 112, 135, 138, 141, 158, 205, 388
Baha al-Din Khurasani, 304, 318
Baha Ih'haq, 107
Bahrain, 353
Baiju (general), 121–3, 181–2, 188, 379, 382
balish, 121, 128, 216
Balkh, 36–7, 39, 41–3, 45, 54, 60, 70–1, 109, 119, 150, 328, 388–9
Baluchistan, 78
Bamiyan, 41, 44, 52, 58, 60, 67
Baraq (Chaghadaid ruler), 101, 193–7, 200, 382, 387
Bardha', 129, 132, 247, 249, 333–5, 347, 362–3, 372
basqaq, 32–3, 44, 62, 72, 89, 99, 102, 128, 131, 133, 135, 151, 195; *see* *daraghchi* and *shahna*
al-Basra, 281, 349, 357–60, 367, 379
Batu (Jochid ruler), 91–2, 98–9, 101, 111, 117, 121, 128, 130–1, 134–5, 137–8, 140, 143–7, 149–51, 155, 162, 181, 185, 377, 382–4, 386
Batu-Arghun agreement, 144, 146, 147, 151, 163, 170, 377
Batum, 206
Baybars (Mamluk ruler), 189, 216, 308
Baydu (khan), 22, 24, 27, 59, 247, 281, 292–4, 296, 298–9, 304–5, 307, 354, 379, 382–3, 386–7
Baylaqan, 132
Bazar, 110, 187, 238–9, 270, 284–5, 328–32, 337, 353–4, 359–62, 364, 366, 372; Bazar-i Ūrdū, 247, 253, 256, 259, 267, 269–70, 354
Beijing, 31–3, 46, 376, 383, 385; *see* Khan Baliq
Berke (Jochid ruler), 146, 162–4, 171, 187, 382
Besh Baliq, 98, 101
billon, 34–5, 37, 39, 41–2, 50–3, 58, 61–7, 69–71, 82, 92–3, 104, 147–9, 179, 325
al-Biruni, 222
Bishkinid(s), 80, 84
Bistam, 346
Bitlis, 113
Black Sea, ix, 80, 115, 134, 138, 206, 364–6
body politic (theory), 5, 12, 52, 59, 154, 175, 180, 205, 214, 219, 261, 329, 333, 336
bow (as symbol), 78, 82, 103–4, 106–9, 119, 124, 126, 129, 132, 136–7, 263, 275–6
Bow (coinage), 26, 103, 105–6, 109–11, 122, 124, 127, 158, 232
Bukhara, 32–4, 37–9, 41–2, 45, 69–70, 73, 75, 92–6, 100–1, 117, 149, 194–5, 201, 230, 254, 347, 376, 384
Bulghar, 39, 62–3, 66–8, 70, 89, 91, 134–6, 143–5, 148–9, 181, 184, 254, 261, 382, 385; Bulghari, 134, 137, 148
bull, 248, 259, 275
bullion, 49, 51, 155, 205, 220, 251–2, 257, 287, 289, 307, 362
Buqa (several: general and wazir), 101, 131, 245, 261, 265, 267–8, 273–4, 278, 293, 301, 382, 384–6, 388
Byzantine(s), 13, 15–16, 21, 80, 83, 108, 136, 144, 147, 167, 237, 366; Byzantium, 80

Cash (coinage), 65, 67
Caspian Sea, 36, 103, 188, 225, 328, 330, 362, 381
Caucasus Mountains, 151; Caucasian(s), 77, 162
Chifte Minerali madrasa, 198
Chaghadai (khan), 35–6, 46, 49–51, 53, 114, 195, 382–3
Chaghadaid(s), 67, 100–1, 114, 139, 162, 166, 193–7, 200, 206–7, 224, 226, 229, 248, 254, 260–1, 267–8, 283, 294, 296, 347, 369, 381–2, 385–7
cha'o (paper money), 290
China, ix, 31–3, 46, 49, 72, 88–9, 97–8, 100, 106, 116, 169, 193, 212, 230, 234, 290, 294, 325, 371, 378, 381, 383, 385–7, 389
Chingiz Khan, ix, xi, 10, 31–6, 40–1, 43–56, 59–62, 64–6, 68, 70, 72, 74, 76–8, 80, 87–8, 92, 99, 114, 118–19, 130, 139, 148, 150, 170, 181, 202–3, 206, 229, 262–4, 324–5, 376–7, 381–2, 384, 387–9; Chingizid(s), 39, 41, 55, 58, 93, 160, 170, 203, 212, 264, 294
Chinqtai (imperial minister), 72, 98–9, 117–18, 383, 385
Chin Temur (governor), 62, 89–94, 96–100, 102, 116, 118, 134, 376, 382, 385, 388
Chormaghun (general), 89–91, 97, 101–3, 110–11, 115–16, 119, 128, 133, 187, 336, 382–3, 385, 387
Circassian(s), 366
Crimea, 77
Curved Hexagon (coinage), 202, 204–5, 212–14, 227, 232–3
customs (tax), 3, 57, 66, 68, 95, 110–11, 119, 124, 128, 150, 153, 161, 181, 200–2, 251, 260, 294, 367, 373, 376–9; *see tamgha*

dagger (as symbol), 107
Daghistan, 216

Damaghan, 58–9, 130, 148–50, 160, 162, 164, 180, 188, 207, 266–7, 269–70, 283, 346, 348, 364
Damascus, 79, 121–2, 156–7, 182, 322, 330
dāng, 221, 315, 326, 374
daraghchi, 33, 72; *see basqaq* and *shaḥna*
Darband, 77, 80, 143, 162, 216
David(s), x, xiii, 23, 28, 69, 86, 122, 124, 136, 141–2, 145, 163, 166, 182, 184–5, 187, 233, 303, 338–9, 370, 373; David Narin, 145, 163, 383; David Ulugh, 163, 183, 373, 383
Dhihistan, 34, 68, 94, 95, 121, 149, 165, 207, 224, 248, 253, 262, 265–7, 269, 270, 282, 287, 303, 344, 346, 348, 353; Dhihistani, 68, 95, 207, 267, 303
Dimitri (Georgian ruler), 23, 145, 383
dīnār, 39, 59, 63, 140, 254, 276, 316, 370, 374; dinar(s), 14, 34, 44, 140, 156, 215, 293, 310–11, 336, 350, 374
dirham, 35, 38, 39, 59, 109, 144, 149, 210, 218, 242, 254, 276, 315, 319, 320, 324; dirham(s), *passim*
Dinkot (Kalabagh), 47
distribution curve, 168, 220, 246
divine (law), 4, 9, 10, 12, 15–16, 29, 40, 55–6, 58, 237, 253, 254, 264, 355
Diyarbakir, 30, 84, 113; *see* Amid
Dmanisi, 124, 135, 182
Dorbei Doqshin (general), 64, 65, 118–19
dragon (as symbol), 125–7, 150, 264
Dunaysir, 84, 113, 124, 183
Dvin, 79–80

Egypt, ix, 21–2, 82, 113–14, 165, 216, 252, 258–9, 276–7, 293, 311, 315, 318, 320, 352–3, 366, 377, 379, 382
Elburz Mountains, 155–6; *see* Alburz Mountains
elchi(s), 120; *see ilchi*(s)
Eljigitai (general), 135
Erzerum, 216; *see* Arzan al-Rum
Euphrates, 156, 330, 337; *see* Ufrat

Fakhr al-Din Khurasani, 304, 318
al-Fakhri, 310–11, 313, 328, 370, 394
falcon, 68, 210, 217, 242, 259, 262, 264–5, 267–8, 270, 272, 279, 288, 303; *see* gyrfalcon; Falcon–Sun (coinage), 119, 262, 264, 268, 282
fals, 59, 210
al-Farabi, 5, 12, 16, 25, 29
Fars, 78, 114, 147, 149–50, 160, 169–70, 175, 180, 189, 205–8, 217, 242, 249, 253, 255, 258–9, 263, 273, 278, 281, 283, 285–6, 291–2, 297, 302, 304, 307–8, 314, 335, 348–53, 359–61, 377, 381, 385; Farsi, 281, 351
Fatimid(s), 16, 154, 277, 371
Ferghana (Valley), 45
fineness, 250, 286, 314, 315–16, 318, 321; *see* pure, purity
Firuzan, 255, 267, 269–70, 276, 344–5
frequency distribution, 19–20; *see* histogram

Garmsir, 48
Ganja, 26, 79–80, 85, 90, 98, 102, 105, 111, 114–15, 118, 125, 127–8, 130, 152, 159, 247, 333–4
Gavbari (Gawbari), 362
Gaykhatu (khan), 22, 24, 27, 215, 241, 247–8, 253, 268, 276, 278–92, 294, 298–9, 302, 304–7, 311–14, 327, 329, 354–6, 374, 379, 382–3, 389; *see* Irinchin Turji
gaz, 320
Georgia, ix, 77, 79, 86, 91, 114, 122, 126, 136, 163, 206, 259, 338–9, 378–9, 383, 388; Georgian(s), 15, 80–1, 85, 106, 122, 124, 127, 129, 136–7, 141–3, 145–7, 182, 187–8, 205, 211, 215, 221, 238, 240, 260–1, 289, 327, 331, 339, 373, 383, 388; *see* Gurjistan
ger, 357
gerege(s), 43, 139, 324; *see paiza*
Ghazan, xi, 23, 27, 59, 68, 74, 141, 158, 189, 196, 212, 218, 227, 241, 247, 251–3, 256, 259–61, 264, 266–8, 274, 276–7, 282–4, 289–91, 293–301, 303, 304–5, 307–8, 310–13, 317, 321–31, 333, 335–9, 341–4, 347–50, 353–60, 363–4, 366–7, 369–73, 378–80, 382–4, 386–9; Ghazan Mahmud, xi, 303, 323, 328
Ghazna, xi, 42–58, 64, 67, 71–3, 75, 162, 189, 384
Ghiyath al-Din (Jalal al-Din's brother), 77–8, 355, 384
Ghiyath al-Din (Rashid al-Din's son), 274, 384
Ghiyath al-Din Kay-Khusraw II (Rum Saljuq ruler), 107
Ghiyath al-Din Toqto'a (Jochid ruler), 389; *see* Toqto'a
Ghiyath al-Din Uljaytu, 357
Ghurid(s), 52, 58, 67, 82
gift economy, gift exchange, 310–11
Girdkuh, 130, 188
Gog madrasa, 198
Golden Horde, 45, 162–3, 185, 205, 339, 382, 389; *see* Jochid(s)
Great Saljuq(s), 80, 82–3, 106–7
Grigor of Aknac', 144
gulf, 169, 259, 283, 353, 379, 386; *see* Persian Gulf
Gumush Bazar, 337, 364, 366
Gurganj, 36, 43, 48, 62, 72, 89, 92, 99, 384–5
Gurjistan, 70, 77, 79–81, 83–5, 105, 122–3, 127–8, 130–2, 135–8, 141–6, 148, 154–5, 160, 163, 168, 171, 179, 194, 200, 204–8, 221–4, 226, 228, 233, 236–41, 246–8, 250, 254, 260, 265–6, 273, 283, 303–5, 314–5, 321–2, 327–8, 335, 338–40, 347, 355, 362–3, 368; *see* Georgia
Guyuk (khan), 28, 101, 133–41, 160, 171, 181, 184, 264, 324, 377–8, 383–4
gyrfalcon, 262–4, 268; *see* falcon

Hama, 156
Hamadhan, 26, 76, 78, 82, 130, 155, 159, 206, 223, 229, 233, 235, 238–9, 241, 247, 250, 253, 265, 267, 269–70, 276, 282, 284, 286, 297, 302, 306, 335, 342, 344–5, 364
Harat, 43, 48, 50, 53–4, 58, 61, 67, 71, 73, 98, 148–9, 195, 197, 202, 328, 377–8, 381–2, 385; *see* Herat
ḥarba (as site for devotion), 13, 29
hare, 132, 161, 184, 189, 209–10, 217, 237, 242–3, 258–9, 267, 272
Harran, 156
Heart, 200; *see* Harat
hexagon, 16, 25, 85, 112–13, 129, 153–4, 157, 159–60, 163, 165, 169, 177, 183, 189, 201–3, 224, 226, 282–3, 285, 309; Hexagon (coinage), 128, 136, 154, 157, 168, 171, 179, 186–7, 196, 202, 213–14, 220, 227, 232–3, 246–7, 261
al-Hilla, 173–5, 198, 205, 208–9, 213, 217, 276, 331, 349
Hindu Kush, 41, 58, 60
Hisn Kayfa, 157, 168, 177, 184, 199, 211, 341–2
histogram, 20, 30, 138, 180, 287–9, 306; *see* frequency distribution
History of the Nation of the Archers, 106, 116
Homs, 156, 165
Horseman (coinage), 58, 124, 126, 131, 158, 204, 264
hound, 125, 259; *see* saluki
Huang Ho River, 31
Hulagu, 23, 36, 74, 85, 146–7, 149, 151, 155–64, 166–7, 169–70, 174–9, 181, 186–7, 193–4, 196, 203, 206, 208, 210, 213, 223, 227–8, 240, 308, 321, 325, 329, 349, 377–9, 381–2, 384–6, 388; Hūlāgu Il-Khān, 168, 173, 178, 198, 210, 211, 213, 214, 216, 218, 233; Hulaguid(s), 57, 161, 166–7, 171–2, 175–6, 197, 200, 202, 209, 211, 213–14, 216–18, 223, 227, 236, 239, 242, 253, 291–2, 329
Hungary, 89
Hurmuz, 24, 124, 242, 259, 269, 276, 308, 316, 359, 374, 379
Husayn (Mas'ud Bag's brother), 195
hyperpera, 122

ilchi(s), *see elchi*(s)
Ildigizid(s), 78, 85, 102–8, 118–19, 132–5, 138, 151–2, 385–7, 389
il-khan, 204, 210, 218; Il-Khanate, 172, 228, 377–9
imam, 149–51, 321
India, 3, 36, 52, 59, 64, 77–8, 85, 169, 252, 258–9, 325–6, 352–3, 374, 378–9, 384; Indian, 52, 325, 353, 374, 379
Indus (River), 44, 48, 64, 79, 195
inja, 175, 180
Iran, *passim*; Greater Iran, *passim*
'Iraq-i 'Ajam, 26, 76–8, 131, 204, 206, 208, 223, 228–9, 238–9, 247, 253, 255, 262, 273, 278, 282–3, 286–7, 302, 304, 335, 342, 344, 346–7, 353, 363, 378
'Iraq-i 'Arab, 15, 26, 78, 82, 154, 156, 160–1, 166–7, 169, 172, 175, 181, 197, 200, 204, 206, 208, 212, 222, 228, 247, 253, 256, 273, 278, 281–2, 286, 291, 304, 335, 342, 348–50, 352–3, 359, 361, 377, 385, 387
Irbil, 78, 84, 91, 113, 120, 131–2, 161, 167–8, 172–3, 175–6, 183, 188–9, 198–9, 205, 209–10, 213, 217, 237, 242–3, 247, 250, 258, 331, 341–3, 363

Irinchin Turji (khan), 245, 278–81, 283–5, 292, 294, 297, 300, 306–7, 311, 355; *see* Gaykhatu
Irminiya, 81, 84, 337–40, 353, 362–3; *see* Armenia
irrational ratios, 221–2
Isfahan, 82, 85, 130, 247, 249–50, 255, 267, 269–70, 276, 302, 342, 344, 347, 363
Isfara'in, 76, 91, 94–5, 103–4, 130, 224–6, 237, 247, 266–7, 269, 283, 347–8, 357, 364, 387
ism, 71
Isma'il (ruler of al-Mawsil), 165, 189
Isma'ili(s), 10, 130, 150–1, 155–6, 160, 162, 186, 188–9, 386; *see* Assassin(s)

Jahan Pahlavan (Ildigizid ruler), 81–2
Jajarm, 91, 130, 241, 283, 303, 309, 347, 348
Jalal al-Din (Menguburni), 43–4, 47–9, 51–2, 56, 64–5, 72–3, 75, 77–81, 83–7, 89–90, 118–19, 132, 383–4, 387–9
jam , 33; *see yam*
Jamal al-Din (governor of Fars and 'Iraq-i 'Arab), 245, 352–3
Jāmi' al –Tawarīkh, xi, 370
Jand, 35, 89
jarīb, 319–20
Jarun, 359
Jazira, 13, 15, 26, 39, 82–4, 86, 113, 120, 126, 154, 156–7, 160, 165–8, 171–3, 175–7, 179, 181, 187, 199–200, 205–6, 208–9, 211, 213, 216–19, 222, 225, 228, 232–3, 235–40, 247, 252–3, 255–6, 258–60, 262, 264–5, 267, 269, 273, 281, 283–4, 286–7, 291, 303, 313, 322, 333, 335–6, 339–43, 353–4, 363, 366–7, 377–8, 386; Jaziran, 15, 108, 113, 132, 166, 168, 175, 199, 205, 217, 234, 236, 254, 256, 258, 339, 363, 378–9
Jazira ibn 'Umar, 173, 175, 177, 199, 211, 213, 216, 218, 225, 232–3, 235, 247, 253, 255–6, 258, 264–5, 281, 284, 335, 339–42, 363
Jebe (general), 76, 78
al-Jibal, 15, 36, 60, 82, 89
Jilan, 333, 335, 353, 360, 362
Jochi (khan), 35–6, 43, 60, 62, 89, 91, 134, 155, 382–4
Jochid(s), 46, 67, 91, 114, 135–6, 144, 146, 155, 157, 160, 162–3, 167, 171, 185, 194, 196, 208, 215, 233, 248, 260–1, 268, 354–5, 369, 385–6, 388–9
Jurjan, 130, 224–6, 247, 266–7, 269–70, 273, 278, 282–3, 347–8
Juvain, 76
Juvayni, 'Ata Malik (governor of Fars and 'Iraq-i 'Arab), 10, 41, 44–5, 47–8, 52–3, 57, 59, 69, 71–3, 79, 92, 100, 105–6, 116–17, 119, 126, 131, 134, 140–1, 143–4, 167, 182–3, 197–8, 215–6, 227, 234, 243, 277, 290, 308, 312, 349, 370, 382, 385
Juvayni, Shams al-Din (wazir), 198, 240, 245, 385

Kabul, 51
Kafiristan, 49, 51, 53
kalima, *passim*
Kalka (River), 77
Kars, 80
Kartli, 124, 373
Kart(s), 148, 328
Kashan, 106, 130, 205–6, 223, 229, 233, 241–2, 247, 249, 253–6, 264–6, 269, 276, 278, 282, 297, 302, 335, 342, 344–5, 358, 363
kayla, 319, 320
Kazirun, 169, 259
Khabudjama, 91, 95, 117, 267, 270, 335 , 344
Khabushan, 247, 259, 266–7, 269–70
Khamush (Ildigizid ruler), 84, 152, 385, 387
Khan Baliq, 46; *see* Beijing
Khānī Dirham, 33–5, 37, 39–42, 50, 54–5, 58–9, 61, 63–4, 66–7, 70, 74, 254
kharaj, 180; *see* tribute
kharruba, 21, 233; *see qirāṭ*
Khartpirt, 338
Khayyam, 'Umar, 222
al-Khazini, 'Abd al-Rahim, 9
Khilat, 122, 338–40, 363; *see* Akhlat
Khitan(s), 31–2, 42, 44–5, 62, 68–9, 73, 88–9, 92, 118, 376, 381–2; *see* Liao
Khojand(a), 73, 92–3, 95–6, 100, 254
Khoy, 79
Khubilai (khan), 101, 160, 162, 170–1, 174, 193–4, 196, 229–30, 293, 305, 325, 371, 382, 384–7; *see* Qubilay
Khurasan, 27, 41–5, 53, 59–60, 70, 76, 89–92, 94–9, 102–3, 105, 108–9, 115, 117–18, 121, 128, 130–3, 148–9, 160, 162, 164–5, 181, 189, 195, 197, 200, 203–4, 222–9, 235–242, 247–50, 253, 256, 259–60, 262, 265–70, 273, 278–9, 282–5, 287, 290, 295–6, 303–4, 309, 323–4, 329, 335–6, 342, 344, 347–8, 353–5, 364, 376–9, 381–3, 385, 387–8; Khurasani(s), 54, 68, 91, 95, 100, 115, 124, 131, 164–5, 208, 226, 239, 248–9, 259–62, 267, 283, 298–301, 304, 318, 320, 348, 354, 369, 377; Khurasanian(s), 91, 208
Khurramabad, 247, 256
khuṭba, 40, 330, 355
Khwarazm, 36, 89–90, 101; Khwarazmian(s), 32, 34, 36–40, 42, 44, 46, 52, 55, 58, 60, 64, 71, 73–4, 77–81, 84–5, 92, 102, 118, 152, 169, 182, 384–5, 388; Khwarazmshah(s), 31, 36, 41, 43, 45, 52, 55, 71, 76–8, 87, 149, 367, 381, 383, 389
Kirgiz, 93, 96–102, 105, 108, 110–11, 114–16, 122–4, 127–8, 130–1, 152, 154, 164, 203, 226, 312, 369, 377, 385, 387–8
Kirman, 22–4, 69, 78, 97, 124, 189, 241, 244, 247–9, 276, 281, 285–6, 292, 297, 301–2, 304, 314, 331, 335, 358–61, 367, 370, 377; Kirmanshah(s), 331
Kuchluk (Qara Khitan ruler), 31, 44, 73
Kuhistan, 78, 197; *see* Luristan
Kul-Bolat (general), 91, 100, 385
kunya, 71
Kur (River), 163; Kur–Aras, 112, 130, 135
Kurds, 84, 330
Kurram, 50–4, 58, 61, 64, 67
Kurriman, 50–1, 62, 64–8, 103–4, 118–19, 203
Kursi al-Daylam, 149, 156

Lake Urmiya, *see* Urmia
Lake Van, *see* Van
Laksi (general), 296–7, 299–302, 304–5, 308, 386–7
lām–ālif ligature, 42, 156
Langoran, 111
laqab, 35, 40, 42, 71
Liao, 32; *see* Khitan
lion, 107–8, 122, 184, 225, 259, 266, 271, 277, 284, 298, 301, 303, 308
Lu'lu', Badr al-Din (ruler of al-Mawsil), 122, 124, 156–7, 165, 187–8, 386
Lur, xi, 322, 370–1; Lur-i Kuchuk, 326, 344
Luristan, 197, 256, 263, 265, 273, 342, 344, 347, 378; Greater Luristan, 322, 342, 344–5

Ma wara al-Nahr, 34, 39; *see*Transoxiana
Mahmud Ghazan, 317; *see* Ghazan Mahmud
Mahmud Shah (governor of Sabzavar), 130, 142
Mahmud Yalavach (governor), 41–2, 44, 47, 49, 62, 66, 72, 102, 140, 386; *see* Yalavach
Makka, 14, 252
mal, 91, 116, 353
Malabar, 169, 353
Malatiya, 337–8
al-Malik al-Nasir (Ayyubid ruler), 122
al-Malik al-Salih Najm al-Din (Ayyubid ruler), 122
Mamluk, 19, 165, 188, 216, 260, 264, 276–7, 293, 308, 330–1, 382, 386
mann, 317, 319, 320
Manṣūrī, 39, 71, 149, 254
Mansuriya Saray, 349
al-Maqrizi, Taqi al-Din, 252, 276
Maragha, 78–9, 81, 84, 86, 326, 330–1, 333–4, 362, 372, 386
Mar 'ash, 337–8
Mardin, 84–5, 113, 122, 124, 131–2, 157, 168, 172–3, 175–7, 183, 187, 197–9, 205–6, 208–11, 213, 216–18, 225, 228–9, 231–3, 247, 249–50, 256, 261, 265–70, 273, 277, 281–2, 297, 302–3, 314, 321–2, 330, 335, 341–4, 347, 363, 366, 371, 373, 378, 386
Marw, 42–4, 46, 67, 71, 94, 133, 224–6, 237, 247–8, 250, 276, 303, 323, 328; *see* Merv
Master Arabesque, 54, 61, 64–6, 201–2, 204–5, 211, 214, 217, 224–8, 235–7, 239–40, 242, 250, 279–81, 287, 290
Master Circle, 214–18, 223, 227–8, 247, 274, 280
Master Crescent, 293
Master Daisy, 166–8, 170, 198, 227
Master Dot, 280–1
Master Double Knot, 279–80
Master Double Loop, 299–300
Master Loop-Trident, 279
Master Spiked Pellet, 279

Master Star, 159–62, 164–7, 172, 212, 214, 227–8, 235–6, 238, 240–1, 249–50, 253–4, 257, 262, 274, 281, 299
Master Triangle, 54
Master Trident, 171–5, 179, 227, 279–80, 284–5, 290
Mas'ud Bag (governor of Transoxiana), 69, 72, 82, 100–2, 118, 149, 194–6, 201, 230, 254, 386–7
al-Mawsil, 26, 28, 82–3, 91, 113, 122, 124, 156, 165–8, 170, 172–5, 180, 184, 187–9, 197–9, 205–6, 208, 211, 213, 216–18, 228–9, 236–7, 239, 242, 247, 252–3, 258, 264–5, 267–8, 273–4, 276, 281, 284, 291–2, 297, 299, 301, 303, 310, 313, 325, 335, 340–2, 347, 363, 366, 386; Mawsili, 173, 177, 187, 199, 202, 292–3, 298
Mayafarriqin, 174
Mazandaran, 75–6, 89, 91–2, 94, 98, 121, 142, 160, 162, 164, 185, 224, 265, 283, 290, 344, 346, 348
mengū, 66
Mengu-Bolad (governor of Tabriz), 110, 119, 128, 133–5, 151–2, 386–8
Mengu-Temur (Hulagu's son), 169
Merv, 41, 72; *see* Marw
mid-point technique, 20
mithqāl, 21, 59, 315–16, 321, 370; mithqal, *passim*
Mongka (khan), 14, 23, 28, 46, 59, 68, 101, 107, 139–42, 145, 147–8, 150–1, 153, 155–7, 159–61, 165, 171–2, 176–7, 181, 184–5, 187, 196, 202, 206, 213, 324, 357, 370, 378, 382, 384–9
Mongolian (coinage), x, xiii, 15, 26–8, 32, 45, 57, 72, 74, 116, 125, 139, 186, 189, 210, 212–14, 216–17, 220, 225, 227–9, 232–3, 235–41, 246, 248–50, 258, 265–6, 274, 277, 279–80, 285, 291–2, 294–5, 299, 303, 304–5, 322–4, 339, 356–7, 371, 383
mounted archer (as symbol), 124; *see* archer
Mubarak Shah (Chaghadaid ruler), 193
Mughan Steppe, 76, 103, 129, 362
muhaliq (script), 245
Multan, 77
al-Muqtadir (caliph), 15
Muscovy, 45, 186, 374, 382
al-Mustansir (caliph), 147, 189
Nakhchavan, 79–80, 107, 125, 127–8, 130, 132–4, 136–7, 152, 181, 294, 333–5, 338, 362–3, 378, 387
Najm al-Din Ghazi (Artuqid ruler), 322, 343, 386
al-Nasir li-Din Allah (caliph) (excepting inscriptions), 78, 80, 387
Nasirr al-Din Tusi, 10, 16, 29, 155, 208, 222, 240, 372, 386; *see* Tusi
Nasr b. Ahmad (Samanid ruler), 41
natural (law), 4–10, 12, 16, 29, 55–6, 79, 98, 101, 111, 135, 151, 254, 256, 382, 386
Nawruz (general), 197, 268, 282–3, 294–7, 299, 301–5, 308, 338, 354, 386–7
Naysabur, 26, 43–4, 71, 76, 90, 92–5, 117, 164–6, 183, 195, 224–7, 237, 242, 248, 259, 261, 266–8, 273, 278, 283–5, 304, 323, 347–9, 358; Naysaburi(s), 92, 262, 268, 279, 282, 284–5, 287, 290, 301, 336; *see* Nishapur
Negudari(s), 75, 189; Nigudar (Nugudar) (general), 162
Neo-Platonic, 9, 55, 58; Neo-Platonism, 9, 16, 55
Nihawand, 229, 233, 256
Nimruz, 148–9
Nisa, 116, 347
nisba, 9, 71, 142, 185
Nishapur, 41; *see* Naysabur
Nisibin, 156, 330
Nizam al-Din (sub-governor), 96, 102–5, 109–11, 113–15, 119, 121, 123–4, 126–8, 130–2, 134, 137, 140, 181, 187, 387
Nizam al-Din Shah (sub-governor), 134
Nizari, 149
Nur al-Din Zangi (ruler of al-Mawsil), 82
Nusrat al-Din (Ildigizid ruler), 84, 132–3, 387
nyk, 125, 182

ochir, 150; *see* trident
Ogedai (khan), 35–6, 45–6, 48–51, 53, 60, 72, 74, 81, 87–9, 91–2, 97–102, 106, 112, 115–16, 119, 138, 170, 182, 195, 230, 264, 290, 295, 312, 367, 370, 376–7, 382–4, 387; Ogedaid(s), 135, 139, 193–5, 229, 381–2, 386–7
Oghuz, 106
Oriat, 114
ordu, 45, 264; *see urdū*
ortaq, 110
Otrar, 69; *see* Utrar
Ottoman(s), 300, 366
Oxus River, 41, 113, 318, 320; *see* Amu Darya

paiza(s), 101, 324; *see gerege*
pan-Mongol, 260–1, 369
pao, 169, 325
Parthians, 13
Parvan, 44, 47, 60, 72, 384, 388; Battle of, 388
paymāna, 319, 370
peak, 20, 172, 220, 246, 287, 289, 307, 328
Persian Gulf , 276, 325, 353, 378; *see* gulf
'Phags-pa (script), 324–5, 371
piramuz, 156
Plato, 5, 9, 16
poll tax, 49, 58, 61–3, 68, 72–3, 97–9, 105, 110, 112, 115, 123, 128–30, 140, 144–5, 153, 157, 165, 170–1, 180, 183, 200–2, 214, 219, 226, 228–9, 376–9, 388; *see qubchur*
positive (law), 4, 6, 10, 12, 16, 19, 25, 40, 55–6, 58, 213, 237, 253–5, 366
Prosperity (coinage), 109, 111, 113–14, 126–7
pure, 12, 22, 34, 57, 67, 185, 215, 260–1, 283, 393, 315–16, 319, 326, 374
purity, 23, 75, 103, 149, 180, 214–15, 246, 250, 260, 283, 286, 292, 315, 327; *see* fineness
Pythagorean, 3, 5, 16

qa, 68, 70, 74, 210
qafiz, 319
qalan, 72
Qa'lat Nay, 64
Qara Arslan (Artuqid ruler), 157, 177, 187
Qara Khanid(s), 34–6, 42, 45, 55, 68–9, 74, 193, 389
Qara Khitan(s), 31, 42, 44–5, 62, 73, 89, 376, 382
Qara Qorum, 91, 98, 102, 135, 139–40, 142, 181, 293
Qarabagh, 107, 111–12, 127, 130, 295, 330
Qaramanid(s), 337
Qaramatian (script), 156
Qarluq; *see* Turks, Karluk
Qars, 338, 340
Qatwan Steppe (Battle of), 45
Qaydu (Ogedaid ruler), 101, 193–5, 382, 387
Qaysariya, 216, 337
Qazvin, 130
Qilij Arslan IV (Rum Saljuq ruler), 137, 388
Qipchak(s) (Kipchak), 69, 101, 163; Qipchak Steppe, 101
qirāṭ, 21, 220–1, 233, 321; *see kharruba*
quality (control), ix, xiii, 5–6, 11, 13, 18, 20, 55, 82, 96, 134, 158–9, 168, 171, 204–5, 220, 246–7, 249–50, 256, 260, 278, 287, 289, 317, 336, 370, 378
qubchur (qupchur), 46, 49, 54, 63–4, 73, 97–8, 116, 128, 130, 136, 144–5, 147, 150–1, 153, 155, 157, 180, 185, 196, 200–1, 224, 274; *see* poll tax
Qubilay, 193; *see* Khubilai
Qum, 69, 130, 283
Qunduz, 36, 38, 70
Qunya, 185, 337, 365–6
quriltai, 68, 72, 87–8, 96–7, 99, 103, 115, 130–3, 139, 141, 143–4, 146, 151, 154–5, 171, 181, 194, 230, 247, 275, 296, 323, 327, 330–1, 356, 367
Qutb al-Din Shah Jahan (ruler of Kirman), 292
Qutlugh Khanid(s), 69
Qutuqu Noyen, 48; *see* Shigi Qutuqu

Rashid al-Din, xi, 77, 97, 103, 162, 187, 251–2, 259, 266, 274, 311–13, 321–2, 325–7, 339, 347, 352, 356, 358, 370, 384, 388
al-Rayy, 15, 76, 78, 82, 106, 130, 183, 283, 346, 347, 348
Roman Empire, 13
Rum, 3, 15, 25, 28, 80–5, 107–8, 113–14, 120–3, 126, 131–2, 135–8, 141–2, 154, 158, 172, 180–1, 199, 204, 216, 248, 304, 314, 326, 329, 335–8, 342, 353
Rum Saljuqs, 3, 15, 25, 80–5, 107–8, 122–3, 135–7, 180, 199
Rusudan, 80, 85
Ruyan, 185, 334–5

Sabzavar, 100, 130, 142, 247, 283, 347–8, 364
Sa'd al-Dawla (wazir), 273, 388

Sadr al-Din (sub-governor), 133–5, 151, 153–5, 158, 167, 181, 305, 388–9
Safavid(s), 85
Salah al-Din (Ayyubid ruler), 81–2
Salgurid(s), 78, 147, 169, 249, 325, 353, 381
Saljuq(s) (Great and Rum), 3, 15, 25, 70, 73, 80–5, 91, 106–8, 112, 119, 121–4, 126–8, 131, 134–8, 141, 144, 154, 158, 161, 179, 180, 182, 184, 188–9, 199, 222, 233, 325, 337, 364, 371, 388
Saljuq Shah (Salgurid ruler), 169
Salt Range, 77
saluki, 125, 132, 183; *see* hound
Samanid(s), 41
Samarqand, 15, 32–9, 41, 44–6, 50, 52, 58, 60–70, 73, 76–7, 88, 92–6, 101–2, 105, 114, 117, 149, 186, 193–5, 230, 254, 260–1, 325, 376, 378–9, 384–5
Samsun, 337, 364–5, 372
Samtskhe, 147, 206, 373
Sarakhis, 42
Saray, 45, 206, 208, 349
Sarraq (Jochid ruler), 146
Sassanian(s), 13, 15–16, 21, 184, 189
Sawa, 331, 342, 344–5
Sayf al-Din (ruler of Hurmuz), 24, 276
Secret History of the Mongols, 62, 72, 388
Seleucid(s), 13, 21
Shabistar, 326, 344–5
Shahada (coinage), 28, 39, 92–6; *shahada, passim*
shahna, 76; 34, 41–4, 60, 72; *see basqaq* and *daraghchi*
Shahristana, 89, 101, 267, 270, 344, 346–8, 353, 355
Shams al-Din Ildigiz (Ildigizid ruler), 82
Shams al-Din Juvayni (wazir), 198, 240, 245, 385; *see* Juvayni
Shams al-Din Muhammad (Kart tuler), 148
Sharaf al-Din (governor), 90, 92–100, 114, 116, 121, 123, 128–32, 140, 142, 146, 150, 153–4, 164, 180–4, 231, 305, 385, 387–8
Shigi Qutuqu (general), 44, 48–9, 60, 37, 118, 388; *see* Qutuqu Noyen
Shiraz, 22, 24, 124, 169–70, 207, 213, 242, 247–9, 255, 258–9, 267, 269–70, 276, 278, 281, 302, 306–7, 335, 350–2, 359, 361, 366–7, 374, 379
Shirvan, 77, 162–3; Shirvanshah(s), 80
Shushtar, 322, 344–5; *see* Tustar
Sijistan, 58, 148; *see* Sistan
sikka, 12, 229, 250, 254–5, 258, 284, 292, 304, 324
Sind (Lower), 73, 77, 78, 118, 248
Sinjar, 167, 172–6, 198, 208–9, 211, 217, 237, 247–9, 255, 256, 258, 269, 284–6, 292, 298–9, 301, 303, 330–1, 341–3
Sinub, 337, 365
Sistan, 89–90, 149, 328, 383; *see* Sijistan
Sivas, 28, 80, 136–8, 141, 154, 181, 184, 198, 337
skew, 220, 246, 289
Song (Empire), 31, 66, 68, 325
stork (as symbol), 125, 150, 264, 362
Subedei (general), 76, 78
sun (as symbol), 107–8, 122, 225, 262–5, 268, 271, 279, 298, 303, 365
Suyurgatmish (ruler of Kirman), 249
Syr Darya (River), 35, 89, 194
Syria, 15, 21, 29, 82, 86, 113–14, 120, 155–6, 160, 182, 184, 251, 276–7, 311, 330–1, 341, 367, 370, 373, 377, 378–9, 381, 384, 386; Syrian, 156–7, 187, 330, 339, 341, 350, 367, 379
Syriac (script), 15, 212

Tabriz, x, 22, 24–6, 28, 59, 65, 79–87, 90, 95, 102, 107, 110–13, 118–21, 126, 128–30, 132–4, 138, 143–4, 151–5, 157–71, 174–5, 177, 179–81, 187–9, 194, 196–7, 200–8, 211–30, 232, 235–7, 246–51, 253–8, 260–2, 264–70, 273–7, 279–306, 318–20, 322–3, 327–9, 340, 342, 353–4, 356–62, 366–8, 370–2, 374, 377, 381, 384–9; Tabrizi(s), 81, 168–9, 208, 261–2, 299, 323, 336, 340
Tajikistan, 36
Talaqan, 36, 43–4, 55, 148, 186, 195
tamgha, 82, 97, 99, 106–7, 110, 112, 128–9, 132, 143, 145, 147–50, 152, 155, 158–9, 162, 173, 180, 196, 201, 205, 208, 212, 217, 219, 225, 227, 229, 240, 279–80, 290, 388; *Tamgha* (coinage), 107, 142–3, 145; *see* customs tax
tamma, 194, 229
Tangut(s), 31–2, 59–60, 69–70, 74, 88, 377
Tarabi Revolt, 33, 46, 100, 377, 385, 389
Taurus Mountains, 113
Ta'us, 259, 297, 351–2
tebghur, 350
Tegudar (khan), 174, 235–6, 238–43, 246, 248–9, 254, 274, 294, 329, 385, 388; *see* Ahmad
Temur (Jochid ruler), 62, 89–4, 96–100, 102, 106, 116, 118, 134, 169, 206, 376, 382, 385, 388
Temur Yaligh (Great Saljaq ruler), 106
Terek River, 162, 188
Tibet, 174, 325; Tibetan, 280, 325, 355
Tiflis, 23, 26, 28, 68, 79–80, 85–6, 102, 104–5, 108, 111–12, 119–20, 122, 124–5, 127–30, 132, 135–8, 141–7, 149, 152, 154–5, 158, 160, 163–4, 166, 168–72, 175, 179–82, 185, 189, 205–6, 214, 221, 224–6, 233, 236, 238–9, 241, 243, 246–9, 260, 307, 335, 338–40, 344, 363, 383; Tiflisi, 260
Tigris (River), 78, 112, 175, 211, 255, 330
Tinger, Tingri, Tenger, 126, 186, 232, 243, 324, 355
Tirmidh, 36, 70, 354
Toghrul Qan (Kerait ruler), 32; *see* Tughrul Khan
Tolui, 42–3, 60, 89, 382–3, 386, 388; Toluid(s), 139, 146, 160, 162–3, 166, 193–6, 212, 224, 229, 233, 235, 248, 251, 254, 260, 262, 264, 268, 294, 382, 384, 387
Toqto'a (Jochid ruler), 354, 389; *see* Ghiyath al-Din Toqto'a
Torgene Khatun (queen regent) (Ogedai's widow), 114; *see* Turkhina
Tort Aba (governor of Samarqand), 32, 69
Transoxiana, ix, 32–3, 44, 59, 62, 67–8, 71, 91, 96, 139–40, 149, 376, 379, 382, 387; *see* Ma wara an-Nahr
Trebizond, 80, 364
tribute, 31–4, 36–8, 41, 43–9, 51, 58, 62–3, 65–6, 68, 70, 73–4, 80, 84, 91–4, 96–7, 101, 115–16, 120–3, 131, 135, 138, 140–2, 144–5, 150, 157–8, 170, 180, 183, 195, 207, 224, 248, 293, 337, 376–9; *see kharaj*
trident, 82, 107, 119, 131, 145, 147–8, 150, 158, 185, 264, 279, 296, 300; *see ochir*
trimetallic policy, 208, 215, 218, 297
tughār (t'aqar), 317, 319–20, 350, 373
Tughril (Great Saljaq ruler), 42, 80, 82, 106, 263
Tughrul Khan (Kerait ruler); *see* Toghrul Qan; Tughrul-Tigrin, 263
Tukharistan, 16, 34, 41, 71
Tulak, 64
tūman (*tūmen*), 133, 350
Turan, 143, 145, 374
Turk(s), 32–3, 40, 45, 89, 106, 108, 119, 137, 212, 301, 366; Karluk Turks, 45; Turkish, 15, 32, 42, 44–5, 56, 71–2, 81–4, 90, 106, 108, 112, 120, 126, 132, 137, 184, 231–2, 300, 303
Turkey, ix
Turkhina (coinage), 182
Turkman, 116, 169
Turkmenistan, ix
Tuqat, 364
Turshiz, 265, 269, 277, 364
Tus, 26, 43, 76, 90, 94–5, 108, 111, 114–15, 117, 121, 131, 133, 164, 166, 183, 197, 224–6, 231, 248, 259, 266, 269, 274 , 347, 349, 385
Tusi, Nasir al-Din, 10, 12, 16, 29, 117, 155, 208, 222, 240, 372, 386; *see* Nasir al-Din Tusi
Tustar, 344; *see* Shushtar
tzqu, 116

Ufrat, 337–8, 353
Uighur(s), x, 25, 45, 98, 114, 120–1, 212–14, 225, 228–9, 231, 235, 237–9, 241–3, 245–6, 248, 250, 258–9, 266, 270–1, 275, 277, 280, 284–5, 291, 299, 303, 306, 309, 323, 325, 344, 346, 355, 385
Ujan, 330–1, 355, 360, 362, 370
Ulaghchu (Jochid ruler), 146
Uljaytu (khan), ix, 27, 57, 187, 233, 274, 294, 313, 321, 339, 355–64, 366–9, 373–4, 378–9, 381, 388–9
ulūs (*ulūsh*) 28, 49, 52, 63, 99, 123, 135, 141, 155, 162, 194, 196, 207, 229–30, 248, 260–1, 312, 356, 369
al-'Umari, 252, 336
Umayyad(s), 13, 15, 101
ūrdū, 238; *Urdū* (coinage), 61–2, 65, 67, 74; *see ordū;*
Urmia (Urmiya), 333–4; Lake Urmiya, 79, 81
Urumchi, 98
Utrar, 31, 33, 35–6, 45, 62–3, 66–7, 69, 73, 114; *see* Otrar

Uzbag, Muzaffar al-Din (Ildigizid ruler), 23, 83–4, 132, 385
Uzgand, 35, 42, 45, 68–9, 193

Vakhash (Valley), 37
Van, 339–40; Lake Van, 81, 113, 122, 127, 339
vassal(s), 25, 31, 84, 86, 121, 123–4, 135–6, 148, 150–1, 154, 162, 165, 168–9, 181, 195, 203, 266, 292, 293, 341, 377
Venetian, 366, 379
Volga (River), 77, 89, 91, 134, 144, 184, 385

Wakhtang (Georgian ruler), 23, 322, 339, 373
al-Wasit, 281, 284, 286, 321, 329, 331, 349, 350, 355
Wassaf, 273, 308, 322, 353, 373–4

Yalavach (governor), 41–2, 44–54, 58–9, 61–8, 72–3, 92–3, 96, 100–2, 140, 146, 148, 154, 376–7, 386, 389
yam, 140; *see jam*
Yaqut, Jamal al-Din, 245, 274, 280–1
yarligh, 77, 98, 101, 139, 147, 235
yasa/yasaq, 55, 130, 170–1, 181, 195–6, 202, 229, 235, 294
Yazd, 242, 247–9, 302, 348, 350–3, 360
Yeh-lü A-hai, 31–2, 381; *see* A-hai
Yeh-lu chū-tsāi, 88
Yesugei (khan), 263
Yildiz (governor of Ghazna), 52
Yuan (Dynasty), 46, 116, 184, 294, 385
Yuan Shih, 184
Yusuf Shah, ʿAla al-Din (ruler of Yazd), 242, 249

Zabulistan, 12, 16, 41–2, 44–5, 47–51, 58–62, 64, 67, 72, 89, 99, 103, 105, 140, 154, 376, 389; Zabulistani, 50–1, 58–9, 61, 65, 68, 74, 165, 179, 226, 333
Zagros Mountains, 91
al-Zahir (caliph), 65
Zanjani, Sadr al-Din (wazir), 305
Ziya al-Din ʿAli (governor of Marw), 42–3
Zoroastrian, 13–14

The administration of Iran under Mongol rule was often complex. Nevertheless, the book is able to explore it by means of taxation and monetary policy. A consistent development emerges through the abundant numismatic material available from the conquest of Samarqand by Chingiz Khan to the reign of the penultimate ruler, Uljaytu. In many cases, the individuals responsible for initiating and conducting policies can be identified from the special marks of mint masters. Moreover, the structure of the empire was clearly demarcated by mint production, coin styles and type of metal. The analysis illuminates many controversial historical points such as the meaning and function of an il-khan and the process and date of the establishment of the Toluid Dynasty after Hulagu. In Iran, the Mongols broke the crust of an inflexible and archaic Islamic monetary tradition that had been hampering economic growth. They did so by encouraging extensive trade and the advancement of sciences, especially astronomy and higher mathematics, with determined and always pragmatic programmes.

Judith Kolbas studied in the US and Lebanon, conducted research around the world and then lived in Mongolia and the UK. She is currently vice president of the Royal Asiatic Society, and explores trade routes, often by camel, in Chinese Turkestan and Inner Mongolia.

Middle East Studies / History

Cover illustration: Horseman type (Nakhchavan, 642 H); 2.87 grams.
Collection of Steve Album 39.

ISBN 978-0-415-59932-0
90000